NASA SP-3023

CALCULATIONS OF THERMAL, FIELD EMISSION FOR A TERMINATED IMAGE POTENTIAL

MORRIS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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By James F. Morris

Lewis Research Center, Cleveland, Ohio

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SUMMARY

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Computed properties are presented that characterize electron emission with a terminated image potential for fields from 10^6 to 10^8 volts per centimeter, temperatures from 0^o to 3000^o K, work functions from 1 to 8 volts, and Fermi levels from 1 to 15 electron volts. Theoretic electron-number and current densities, energy distributions and fluxes, and temperatures describe the electrons that escape over and through confining potential walls. Because the terminated image potential produces higher and wider emission barriers, its current densities fall below those for the ordinary (nonterminated) image potential at identical conditions. Where they apply, these theories probably bracket real thermal, field emission.

Author

INTRODUCTION

The calculations of this paper predict properties of thermal, field emission impeded by a barrier with an image potential that terminates at the Fermi level on the surface of the emitter (TIP) (ref. 1). These theoretic electron-number and current densities, energy distributions and fluxes, temperatures, and barrier dimensions reveal suprabarrier and intrabarrier emission effects. To reach regions of thermal, field emission where simple theories probably apply as well as where they are generally used, the results spread over fields from 10^6 to 10^8 volts per centimeter, temperatures from 0^o to 3000^o K, work functions from 1 to 8 volts, and Fermi levels from 1 to 15 electron volts.

Dyke and Dolan (ref. 2) published some similar numbers for the usual nonterminated image potential (NIP). They sketched energy distributions for a 4.5-volt work function and tabulated current densities for work functions of 4, 4.5, and 5 volts with fields from 10^7 to 10^8 volts per centimeter and temperatures from 0^o to 3500^o K.

The NIP and TIP begin and end a series of simple models for emission barriers that should include an approximation of reality (ref. 1). Therefore, actual thermal, field electronics probably interpolates the NIP and TIP theories where they hold.

The TIP properties presented here came from mathematic processes that were transcribed in FORTRAN by Susan Button and Annie Easley and are recorded in appendix C.

THEORY

The TIP theory for thermal, field emission describes the escape of electrons over and through the barrier profiled in figure 1. Its rationale resides in reference 1, which details the TIP derivation. This section merely summarizes that development; appendix A defines the symbols.

Electrons top the TIP barrier in the following current densities:

$$j = \frac{4\pi m(\kappa T)^2 e}{h^3}\left\{\exp\left[-\frac{e\varphi - (e^3E)^{1/2} + \frac{e^2E}{4\varphi}}{\kappa T}\right] - \frac{1}{2^2}\exp\left[-2\frac{e\varphi - (e^3E)^{1/2} + \frac{e^2E}{4\varphi}}{\kappa T}\right]\right.$$

$$\left. + \frac{1}{3^2}\exp\left[-3\frac{e\varphi - (e^3E)^{1/2} + \frac{e^2E}{4\varphi}}{\kappa T}\right] \cdots\right\} \qquad (1)$$

Here the zero-order term approximates the entire expression adequately for usual work functions to fields greater than 10^8 volts per centimeter, where tunneling prevails and the theory fails (ref. 1).

Penetration probabilities for the TIP barrier start with the WKB expression and restrictions (ref. 3),

$$P \approx f(V,\epsilon)\exp\left\{-\frac{2}{\hbar}\int_{x_1}^{x_2}[2m(eV-\epsilon)]^{1/2}\,dx\right\} \approx \exp\left\{-\frac{2}{\hbar}\int_{x_1}^{x_2}\left[2m\left(\mu + e\varphi - eEx - \frac{e^2}{4x + \frac{e}{\varphi}} - \epsilon\right)\right]^{1/2} dx\right\} \qquad (2)$$

where $f(V,\epsilon)$ approximates unity and varies slowly (ref. 2). Reference 1 gives two results for equation (2), one each for the ranges of barrier potentials above and below the Fermi level. In these solutions the exponents involve elliptic integrals of the first and second kinds and yield values like those tabulated in reference 1.

When TIP penetration probabilities (eq. (2)) multiply the Sommerfield-Bethe electron supply function (ref. 4),

$$n(v_x)dv_x = \frac{4\pi m^2 \kappa T}{h^3} \ln\left(1 + e^{\frac{\mu - \frac{m}{2}v_x^2}{\kappa T}}\right) dv_x = n(\epsilon_x)d\epsilon_x = \pi\kappa T\left(\frac{2m}{h^2}\right)^{3/2} \frac{\ln\left(1+e^{\frac{\mu-\epsilon_x}{\kappa T}}\right)}{\epsilon_x^{1/2}} d\epsilon_x \qquad (3)$$

the product predicts tunneling distributions. This intrabarrier effect and the suprabarrier equation (1) compose the total TIP thermal, field emission.

Properties of the freed electrons depend on emitter characteristics (μ, φ, and T) and the field (E). Average conditions for emitted electrons ($\langle u \rangle$) derive from their velocity distribution function, as the following expression reveals:

$$\langle u \rangle = \frac{\int_0^\infty P(v_x)n(v_x)u(v_x)dv_x}{\int_0^\infty P(v_x)n(v_x)dv_x} \qquad (4)$$

This equation integrates both intrabarrier and suprabarrier effects with a penetration probability $\left[P(v_x)\right]$ dictated by equation (2) for potentials up to the summit of the barrier and fixed at unity for energies above that point.

DEFINITIONS FOR COMPUTED RESULTS

When the information of the previous section was detailed, encoded, and relayed to the IBM 7094, it poured forth results from equations (2) to (4). In its present state of learning, the machine integrates numerically the basic penetration expression (eq. (2)) more readily than it stores, interpolates, and dispenses data from tabulations of values of a function of several variables. Thus, the final solutions for equation (2) and the numeric results from reference 1 were not used in these calculations.

With the FORTRAN statement for TIP calculations (appendix C), the IBM 7094 produced output sheets typified by figure 2 and described in appendix B. These results

comprise emitter conditions (first row); discrete, fractional, and differential properties for emission (columns); average characteristics (last two rows); and, finally, four plots of energy distributions of number and current densities (the seventh and eighth columns against mean values of the first column, and the ninth and tenth columns against the second column). In the general presentation of results (fig. 3) only the three rows and four plots appear, but the graphs also display tabulations of values for abscissae and ordinates, which for all four plots include the first two and last four columns.

For these calculations, escaping electrons begin in the emitter and end in free space at the same potential (fig. 1). Therefore, the tabulated electron properties refer to the bottom of the conduction band; this potential prohibits no emission and exhibits no overall acceleration. Furthermore, the results describe either those internal electrons about to leave or the emitted ones.

DISCUSSION OF RESULTS

What conditions best test the NIP and TIP models? And where should these simple theories be used?

A high electric field separates and emphasizes the NIP and TIP effects; they diverge as tunneling increases, while real thermal, field emission probably falls between them in the region where image potentials apply. Apparently then, high fields promise a good evaluation of the NIP and TIP approximations. In fact, most studies compare experiments with theory above 10^7 volts per centimeter.

At 10^7 volts per centimeter, however, NIP and TIP barriers maximize about 5 to 6 angstroms from the emitter face, and at 10^8 volts per centimeter these potentials peak within 2 angstroms from the surface. In the light of these dimensions the assumption of the smooth, planar emitter surface stands stark. Where the thickness of the potential wall nears the size of superficial imperfections, interfacial fields, which definitely differ from those for the assumed flat face, strongly influence the overall shape of the barrier.

Furthermore, high fields probably penetrate the emitter and pull down the bottom of the conduction band near the boundary (ref. 5). This potential incline draws more electrons toward the surface, where they escape over and through the barrier in greater numbers.

In addition, the large currents and steep gradients of conditions near the interface destroy the approximate equilibrium. Then the Fermi distribution flounders in its representation of emitter electrons.

When a high field mobilizes these phenomena, they militate against the reign of the simple emission models. But when fields reduce to 10^6 volts per centimeter, the NIP and TIP maximums move 18 to 19 angstroms from the emitter; this distance is several times

TABLE I. - THEORETIC CURRENT DENSITIES FOR THERMAL FIELD EMISSION WITH 4-VOLT WORK FUNCTION

Source	Reference 2			Present paper		
Theory	Fowler-Nordheim solution (FN)	Ordinary image potential (NIP)		Terminated image potential (TIP)		
Temperature, T, ^{o}K	0	1000	3000	0	1000	3000
Field, V/cm	Current density, A/cm^2					
$10^{7.5}$	4.7×10^{3}	6.5×10^{3}	2.6×10^{6}	5.8×10^{2}	1.1×10^{3}	8.2×10^{5}
10^{8}	2.5×10^{9}	1.9×10^{9}	2.9×10^{9}	2.1×10^{8}	2.3×10^{8}	4.2×10^{8}

the atomic radius, which means that high-field distortions practically disappear. Obviously then, lower fields favor the NIP and TIP theories, but in this region these simple models coalesce.

This conflict rationalizes the range of results (fig. 3), which span from 10^6 volts per centimeter, where field emission hardly appears, to 10^8 volts per centimeter, where the TIP model hardly applies. Fermi levels from 1 to 15 electron volts and work functions from 1 to 8 volts cover clean and coated metal emitters, while temperatures from 0^{o} to 3000^{o} K run the gamut of practical emission from solids.

Between 10^7 and 10^8 volts per centimeter, the TIP results correspond to those for the NIP and Fowler-Nordheim (FN) solutions tabulated in reference 2. Table I compares current densities obtained with FN (0^{o} K), NIP (1000^{o} and 3000^{o} K), and TIP (0^{o}, 1000^{o}, and 3000^{o} K) for a 4-volt work function and fields of $10^{7.5}$ and 10^8 volts per centimeter. The TIP values fall considerably below those for FN and NIP. Unfortunately in reference 2 at 10^8 volts per centimeter, the FN value exceeds the NIP number for 1000^{o} K at 10^8 volts per centimeter, which precludes a valid comparison for 0^{o} K.

Table I specifies no Fermi level because the emitter potential appears not to affect current density. Technically this lacks some part of the truth, as equation (5) indicates:

$$j = n_{ee}e\langle v_x\rangle = e\int_0^\infty Pn(v_x)v_x\,dv_x = \left(\frac{2e^2}{m}\right)^{1/2}\int_{-\mu}^\infty P(\varphi, E, \epsilon_x - \mu)f(T, \epsilon_x - \mu)d(\epsilon_x - \mu)$$

$$= j(\varphi, T, E, \mu) \qquad (5)$$

Except for high fields and low work functions, however, plunging penetration probabilities choke off emission at the low-energy end of the distribution before the outward directed velocities reach zero ($\epsilon_x - \mu = -\mu$) and cut off the electron supply. Therefore, equation (3) of reference 2, where $-\infty$ rather than $-\mu$ limits the integration, generally approximates equation (5) well,

$$j \approx \int_{-\infty}^{\infty} P(\varphi, E, \epsilon_x - \mu) f(T, \epsilon_x - \mu) d\epsilon_x = j(\varphi, T, E) \tag{6}$$

But the Fermi level influences other properties of thermal, field emission presented in figures 2 and 3.

In reference 2 another high-field complication arises when NIP potential maximums sink below the Fermi level near 10^8 volts per centimeter. Of course, the top of the TIP barrier cannot slip below the Fermi level because the image and emitter potentials join at the interface. There is little need to belabor this point further, however, because fields near 10^8 volts per centimeter overwhelm the NIP and TIP models at every turn.

There remains one apparent anomaly to explain. For the combination of low Fermi levels and high fields, distribution functions for emitted electrons display a definite discontinuity at $\epsilon_x = 0$. Although this cutoff always occurs, as equation (5) reveals, emission usually fades to negligibility well above the barrier bottom. In previous papers (i. e., ref. 2) no such breaks in emission occur. Those studies refer electron energies within the emitter to the Fermi level and extend the supply function to plus and minus infinity in an approximation to ease integration (eq. (6)). That approach requires no Fermi level, gives no energy flux, and exhibits no discontinuity in emission. In contrast, the present paper specifies the Fermi level, yields complete information on energies of emitted electrons, and cuts off emission at $\epsilon_x = 0$. Appreciable discontinuities in TIP emission appear, however, only at fields that badly distort the model. No demonstrable theoretic difficulties appear at conditions suitable for applications of NIP's and TIP's.

But some problems arise because the calculations and plots are incremental rather than continuous. First, where significant results occur in regions having Δv_x similar in size to v_x (at $E = 10^8$ V/cm and $\mu = 1$ eV), the fidelity of the computing procedure fails. Again though, this distortion develops only at conditions that preclude the use of TIP and NIP models. Second, although the distribution functions should yield smooth curves, some of the graphs look lumpy. This results from inadvertent correlations of computing and graphing increments that prevent points from scattering randomly about the true mean tendencies of the plotted functions. Thus, a few curves shift slightly or bend abruptly where the distributions actually continue smoothly. In any event, tabulations on each of figures 3 indicate this graphic difficulty and supply proper values of the variables.

After these apologies, the results confer some conveniences. First, the NIP and TIP theories stand as about the only two choices to predict thermal, field emission; the value of this observation depends on the viewpoint. Second, realistic situations occur where neither penetration currents nor the models fail; here the theories submit tractably to experimental tests. Third, the computed distributions and average results provide bases for fractional; differential; or gross evaluations of thermal, field emission, using retardation and calorimetry. Fourth, the spread of variables allows interpolation, and the FORTRAN statement (appendix C) facilitates calculation of results for specific conditions.

CONCLUDING REMARKS

Although this report records results for fields from 10^6 to 10^8 volts per centimeter, it cautions that models for thermal, field emission opposed by barriers based solely on image potentials hold little hope for applicability near the top of this range. While the NIP and TIP theories may perform poorly between 10^7 and 10^8 volts per centimeter, they should prove adequate up to $10^{6.5}$ volts per centimeter. This assumption gains stature from the good performance of Schottky's emission equation at fields near 10^6 volts per centimeter.

Therefore, experiments to test and attempts to apply these simple models of emitters should be confined to the low-field region of thermal, field emission. Refined theories recognizing the surface problems that dominate the potential barrier at high fields must be developed to predict thermal field emission above 10^7 volts per centimeter.

APPENDIX A

SYMBOLS

Equations have cgs units; results are given in units likely to be used in experiments.

E	electrostatic field
e	electron charge
$f(\ )$	function of parenthasized variables
$h, \hbar$	Planck's constant and h divided by 2π
j	current density
m	mass of electron
NIP	nonterminated (ordinary) image potential, also emission model, theory, and other items related to or based on NIP
n_{ee}, n_{em}	number densities of emitted and emitter electrons
$n(\epsilon_T), n(\epsilon_x), n(v_x)$	emitted-electron number density distributions as functions of total kinetic energy, kinetic energy based on outward directed velocity components only, outward directed velocity component
P	penetration probability
T	emitter temperature
T_D	absolute static temperature of an emitted electron beam that maintains its average velocity and randomizes the other velocity components around its drift velocity
T_o	absolute total temperature of emitted electron beam
TIP	terminated image potential, also emission model, theory, and other items related to or based on TIP
$\langle u \rangle$	average value of u
$u(v_x)$	a function of v_x
V	potential relative to bottom of conduction band
v_x	positive x-directed velocity component
v'_x	dummy variable for summation over v_x
x	direction normal to emitter face, positive from surface into free space

x_1, x_2	inner and outer turning points on emitter potential barrier (where $eV - \epsilon_x = 0$)
β	$\mu + (e\varphi - \epsilon_x)$
ϵ_T	total kinetic energy of an electron
ϵ_x	electron kinetic energy based only on positive x-directed velocity component
ϵ_{yz}	electron kinetic energy based on y and z components (parallel with emitter face) of velocity
κ	Boltzmann constant
μ	emitter Fermi level
φ	emitter work function

APPENDIX B

SYMBOLS FOR IBM OUTPUT SHEETS

First Row

T	emitter temperature, ^{o}K
E	electric field, V/cm
PHI	work function, φ, V
AMU	Fermi level, μ, eV
EVMAX	electron-energy equivalent of top of TIP barrier, $eV_{max} = \mu + e\varphi - (e^3E)^{1/2} + e^2E/(4\varphi)$, eV

Columns

EPSX highest value in each increment of electron kinetic energy based only on outward (positive-x) directed velocity component, $\epsilon_x = mv_x^2/2$, eV

The remaining columnar entries pertain to the mean ϵ_x value for each increment. The form F(VXM) denotes a function of v_x computed for this incremental mean ϵ_x.

EPST(VXM) average total kinetic energy of an internal electron with

$$\epsilon_x,\ \text{eV:} \qquad \epsilon_T = \epsilon_x + \langle \epsilon_{yz} \rangle_{\epsilon_x}$$

where

$$\langle \epsilon_{yz} \rangle_{\epsilon_x} = \frac{n(\epsilon_x)\langle \epsilon_{yz} \rangle_{\epsilon_x} d\epsilon_x}{n(\epsilon_x) d\epsilon_x} = \frac{\displaystyle\int_0^{\infty} \frac{e^{-\frac{\epsilon_{yz}+\epsilon_x-\mu}{\kappa T}}}{1+e^{-\frac{\epsilon_{yz}+\epsilon_x-\mu}{\kappa T}}} \epsilon_{yz} \frac{d\epsilon_{yz}}{\kappa T}}{\ln\left(1+e^{-\frac{\epsilon_x-\mu}{\kappa T}}\right)}$$

$$= \frac{\left[\epsilon_{yz} \ln\left(1+e^{-\frac{\epsilon_{yz}+\epsilon_x-\mu}{\kappa T}}\right)\right]_{\epsilon_{yz}=\infty}^{\epsilon_{yz}=0} + \displaystyle\int_0^{\infty} \ln\left(1+e^{-\frac{\epsilon_{yz}+\epsilon_x-\mu}{\kappa T}}\right) d\epsilon_{yz}}{\ln\left(1+e^{-\frac{\epsilon_x-\mu}{\kappa T}}\right)} = \frac{\displaystyle\int_0^{\infty} \ln\left(1+e^{-\frac{\epsilon_{yz}+\epsilon_x-\mu}{\kappa T}}\right) d\epsilon_{yz}}{\ln\left(1+e^{-\frac{\epsilon_x-\mu}{\kappa T}}\right)}$$

when $(\epsilon_x - \mu)/\kappa T$ grows large,

$$\langle \epsilon_{yz} \rangle_{\epsilon_x} \rightarrow \frac{\int_0^{\infty} e^{-\frac{\epsilon_{yz}+\epsilon_x-\mu}{\kappa T}} d\epsilon_{yz}}{e^{-\frac{\epsilon_x-\mu}{\kappa T}}} = \kappa T$$

and when T approached zero,

$$\langle \epsilon_{yz} \rangle_{\epsilon_x} \rightarrow \frac{\int_0^{(\mu-\epsilon_x)} \frac{\epsilon_{yz}+\epsilon_x-\mu}{\kappa T} d\epsilon_{yz}}{\frac{\mu-\epsilon_x}{\kappa T}} = \frac{\mu-\epsilon_x}{2}$$

X_1, X_2 inner and outer turning points (at $eV - \epsilon_x = 0$) of TIP barrier, x_1 and x_2, cm

$$x_1, x_2 = \frac{\beta}{2eE}\left(1 - \frac{e^2E}{4\beta\varphi}\right)\left\{1 \mp \sqrt{1 - \frac{\frac{e}{E}\left(1 - \frac{\beta}{e\varphi}\right)}{\left[\frac{\beta}{eE}\left(1 - \frac{e^2E}{4\beta\varphi}\right)\right]^2}}\right\}$$

P(VXM) TIP penetration probability, $P(v_x)$, eq. (2)

PNDV fraction of emitted (or about to be emitted) electrons that have positive x-directed velocity components up to v_x

$$\frac{\sum_{v'_x=0}^{v_x} P(v'_x)n(v'_x)\Delta v'_x}{\sum_{v'_x=0}^{\infty} P(v'_x)n(v'_x)\Delta v'_x}$$

where eq. (3) defines $n(v_x)$. The summations proceed through prescribed v_x increments.

PN(EX) distribution of emitted electrons as function of kinetic energy based on positive x-directed velocity component only, electrons/cm^3/eV

$$Pn(\epsilon_x) = \left[P \text{ of eq. (2)}\right]\left[n(\epsilon_x) \text{ of eq. (3)}\right]$$

J(EX)/DEX rate of change of emitted current density with kinetic energy based on positive x-directed velocity component, A/cm^2/eV

$$\frac{dj}{d\epsilon_x} = Pn(\epsilon_x)v'_x e = \left[PN(EX)\right](VXM)e$$

PN(ET) distribution of emitted electrons as function of total kinetic energy, electrons/cm^3/eV

$$Pn(\epsilon_T) = Pn(\epsilon_x)\frac{d\epsilon_x}{d\epsilon_T}$$

where

$$\frac{d\epsilon_T}{d\epsilon_x} = \frac{d}{d\epsilon_x}\left(\epsilon_x + \langle\epsilon_{yz}\rangle_{\epsilon_x}\right)$$

$$= 1 - \frac{\displaystyle\int_0^\infty \frac{e^{-\frac{\epsilon_{yz}+\epsilon_x-\mu}{\kappa T}}}{1+e^{-\frac{\epsilon_{yz}+\epsilon_x-\mu}{\kappa T}}}\left(\frac{d\epsilon_{yz}}{\kappa T}\right)}{\ln\left(1+e^{-\frac{\epsilon_x-\mu}{\kappa T}}\right)} + \frac{e^{-\frac{\epsilon_x-\mu}{\kappa T}}\displaystyle\int_0^\infty \ln\left(1+e^{-\frac{\epsilon_{yz}+\epsilon_x-\mu}{\kappa T}}\right)\frac{d\epsilon_{yz}}{\kappa T}}{\left(1+e^{-\frac{\epsilon_x-\mu}{\kappa T}}\right)\left[\ln\left(1+e^{-\frac{\epsilon_x-\mu}{\kappa T}}\right)\right]^2}$$

$$= 1 - \frac{\left[\ln\left(1+e^{-\frac{\epsilon_{yz}+\epsilon_x-\mu}{\kappa T}}\right)\right]_{\epsilon_{yz}=\infty}^{\epsilon_{yz}=0}}{\ln\left(1+e^{-\frac{\epsilon_x-\mu}{\kappa T}}\right)} + \frac{\langle\epsilon_{yz}\rangle_{\epsilon_x}}{\kappa T\left(1+e^{\frac{\epsilon_x-\mu}{\kappa T}}\right)\ln\left(1+e^{-\frac{\epsilon_x-\mu}{\kappa T}}\right)}$$

$$\frac{d\epsilon_x}{d\epsilon_T} = \frac{\kappa T\left(1 + e^{\frac{\epsilon_x - \mu}{\kappa T}}\right)\ln\left(1 + e^{-\frac{\epsilon_x - \mu}{\kappa T}}\right)}{\langle \epsilon_{yz} \rangle_{\epsilon_x}}$$

As $(\mu - \epsilon_x)/\kappa T$ grows large, $\langle \epsilon_{yz} \rangle_{\epsilon_x} \rightarrow (\mu - \epsilon_x)/2$, and

$$\frac{d\epsilon_x}{d\epsilon_T} \rightarrow \frac{\kappa T(1)\left(-\frac{\epsilon_x - \mu}{\kappa T}\right)}{\frac{\mu - \epsilon_x}{2}} = 2$$

or

$$\frac{d\epsilon_T}{d\epsilon_x} \rightarrow \frac{d}{d\epsilon_x}\left(\epsilon_x + \frac{\mu - \epsilon_x}{2}\right) = \frac{1}{2}$$

As $(\epsilon_x - \mu)/\kappa T$ grows large, $\langle \epsilon_{yz} \rangle_{\epsilon_x} \rightarrow \kappa T$, and

$$\frac{d\epsilon_x}{d\epsilon_T} \rightarrow \frac{\kappa T\left(e^{\frac{\epsilon_x - \mu}{\kappa T}}\right)\left(e^{-\frac{\epsilon_x - \mu}{\kappa T}}\right)}{\kappa T} = 1$$

or

$$\frac{d\epsilon_T}{d\epsilon_x} \rightarrow \frac{d}{d\epsilon_x}(\epsilon_x + \kappa T) = 1$$

J(ET)/DET — rate of change of emitted current density with total kinetic energy, $A/cm^2/eV$

$$\frac{dj}{d\epsilon_T} = Pn(\epsilon_x)v_x e \frac{d\epsilon_x}{d\epsilon_T}$$

These functions of total kinetic energy PN(ET) and J(ET)/DET are distributions of electrons emitted because of positive x-directed velocity components only, not because of total velocities.

Last Two Rows

Under the columns lie two rows of averaged results obtained as summed approximations of equation (4). Although the emitter electron number density (NEM) appears first, the remaining properties characterize the emitted (or about to be emitted) electrons.

NEM — electron number density within emitter, complete integration of eq. (3), n_{em}, electrons/cm^3

NEE — number density of the emitted electrons, the effective integration of product eqs. (2) and (3) over all v_x, n_{ee}, electrons/cm^3

VXAV — average velocity of emitted electrons, eq. (4) with $u(v_x) = v_x$, $\langle v_x \rangle$, cm/sec

KEXAV — average kinetic energy based on x-directed velocity components of emitted electrons, eq. (4) with $u(v_x) = mv_x^2/2$, $\langle \epsilon_x \rangle = m\langle v_x^2 \rangle/2$, eV/electron

KEXFL — average flow of kinetic energy based on x-directed velocity components of emitted electrons, eq. (4) with $u(v_x) = mv_x^3/2$, $\langle v_x \epsilon_x \rangle = m\langle v_x^3 \rangle/2$, (eV)(cm)/sec/electron

J — current density of emitted electrons, $j = n_{ee} e \langle v_x \rangle$, A/$cm^2$

KETAV — average total kinetic energy of emitted electrons, eq. (4) with $u(v_x) = \epsilon_x + \langle \epsilon_{yz} \rangle_{\epsilon_x}$, $\langle \epsilon_T \rangle = \langle \epsilon_x + \langle \epsilon_{yz} \rangle_{\epsilon_x} \rangle$, eV/electron

KETFL — average flow of total kinetic energy of emitted electrons, eq. (4) with $u(v_x) = v_x(\epsilon_x + \langle \epsilon_{yz} \rangle_{\epsilon_x})$, $\langle v_x \epsilon_T \rangle = \langle mv_x^3/2 + v_x \langle \epsilon_{yz} \rangle_{\epsilon_x} \rangle$, (eV)(cm)/sec/electron

TZERO — total temperature of emitted electron stream, $T_o = 2\langle \epsilon_T \rangle/3\kappa$, ^oK

TD — static temperature of emitted electrons radomized about drift velocity $\langle v_x \rangle$, $T_D = 2(\langle \epsilon_T \rangle - m\langle v_x \rangle^2/2)/3\kappa$, ^oK

Plots

The machine plotted the last four columns of each tabulated set, PN(EX) against EPSX, J(EX)/DEX against EPSX, PN(ET) against EPST, and J(ET)/DET against EPST, and tabulated the computed results on each figure.

Figure Index

APPENDIX C

FORTRAN STATEMENT FOR CALCULATIONS OF THERMAL, FIELD EMISSION WITH A TERMINATED IMAGE POTENTIAL

by Susan L. Button and Annie J. Easley

```
$ID
$TOP            TIME=1,PAGES=30
$ZERODIV
$MAJUND         NOPRINT
$IBJOB          GO,MAP,SOURCE,DEBUG
$IBFTC MAINJM   DEBUG
C
C     THERMAL FIELD EMMISSION-REVISED-
C
      COMMON /MP/ PNEX(350),JEXD(350),EPSLON(350),EPST(350),NN,NCOUNT,
     1            NSTOP,PNET(350),JETD(350)
      COMMON      N,AMU(10),J,T(10),I,AKAPPA
      COMMON      EPSLNM(350)
      DIMENSION   E(10),PHI(10),AINCR(350),VX(350),DELTVX(350),VXM(350),
     1            VXMOU(350),SUMVX(350),SVX(350),THREE(350),ARG(200),
     2            ANS(150),D(350),DM(350),SUMDV(350),DNVXM(350),SIX(350)
     3            ,TEN(350),EL(350),TWEL(350),X1(350),X2(350),X(350)
      DIMENSION   EYZ(350),SKETAV(350),SKETEL(350),CONST1(350),ENTE(350)
     1            ,DEN(350),TEM(350),DENOM(350),AX(350),CENTE(350),
     3            CIRCYZ(350),SAVE(350)
      EXTERNAL AINT
      DOUBLE PRECISION   CONSTA,PART2,CONST1
  100 FORMAT (I5,7E10.3)
  101 FORMAT(7E10.4)
  102 FORMAT (1H1,5X,4HT = ,E16.8,5X,4HE = ,E16.8,5X,6HPHI = ,E5.2,5X,6H
     1AMU = ,E5.2,3X,8HEVMAX = E8.4)
  103 FORMAT (1H0,5X,4HT = ,E16.8,5X,4HE = ,E16.8,5X,6HPHI = ,E5.2,5X,6H
     1AMU = ,E5.2,3X,8HEVMAX = E8.4)
  104 FORMAT(5X,4HEPSX,6X,9HEPST(VXM),6X,6HP(VXM),8X,4HPNDV,8X,6HPN(EX),
     15X,9HJ(EX)/DEX,5X,6HPN(ET),6X,9HJ(ET)/DET)
  105 FORMAT(5X,4HEPSX,6X,9HEPST(VXM),8X,2HX1,11X,2HX2,9X,6HP(VXM),7X,4H
     1PNDV,8X,6HPN(EX),6X,9HJ(EX)/DEX,5X,6HPN(ET),5X,9HJ(ET)/DET)
  106 FORMAT(1P10E13.5)
  107 FORMAT(1P2E13.5,39X,1P5E13.5)
  108 FORMAT(1P2E13.5,26X,1P6E13.5)
  109 FORMAT (1H0,4X,6HNEM = ,E15.8,4X,6HNEF = ,E15.8,4X,7HVXAV = ,E15.8
     1,3X,8HKEXAV = ,E15.8,2X,8HKEXEL = ,E15.8)
  110 FORMAT (1H0,2X,8H   J  = ,E13.6,4X,6HKETAV=,E13.6,4X,6HKETEL=,E13.
     16,4X,8HTZERO = ,E13.6,4X,5HTO = ,E13.6)
  111 FORMAT (1H$,F6.0,E15.8,2F6.0,3E15.8)
C
C     READ IN TEMPERATURES
C
    2 READ (5,100) II, (T(I),I=1,II)
C
C     READ IN EXPONENTS OF THE FIELDS                                  ,1    ,2    ,3    ,4    ,5    ,6
C
      READ (5,100) LL, (E(M),M=1,LL)
C
C     CALCULATE THE FIELDS                                             ,7    ,8    ,9    ,10   ,11   ,12
C                                                                      ,13
      DO 10 M=1,LL                                                     ,14   ,15
   10 E(M)  =  10.0**E(M)                                              ,16   ,17   ,18   ,19   ,20   ,21
      READ (5,100) MM, (PHI(K),K=1,MM)
```

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                MAINJM
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      READ (5,100) JJ, (AMU(J),J=1,JJ)
C
C     NNEND IS THE N VALUE AT WHICH INCREMENT CHANGES                    ,22   ,23   ,24   ,25   ,26   ,27
C
      READ (5,100) NNEND , AINCR(1)
C
C     CALCULATION OF CONSTANTS                                           ,28   ,29   ,30   ,31
C
      REAL NEM    , KETAV  ,  KETEL ,  JEXD , JETD                      ,32
      KK =  0                                                           ,33
      AKAPPA  =  8.61727E-5                                             ,34
      ESQRD   =  .510976E+6 * 2.81784E-13                               ,35
      ESMALL  =  SQRT(ESQRD)                                            ,36
      PARTL   =  6.6242E-34 / 1.602E-19                                 ,37
      ACON    =  (.510976E+6 / 2.99776E+10**2)                          ,38
      DO 3100 I=  1,II                                                  ,39
      DO 3000 M=  1,LL                                                  ,40
      DO 2900 K=  1,MM                                                  ,41
      DO 2800 J=  1,JJ                                                  ,42
      EVMAX = AMU(J)+PHI(K)+ESQRD*E(M)/(4.0*PHI(K))-(ESMALL*SQRT(E(M)))  ,43   ,44   ,45
      WRITE (6,102) T(I),E(M),PHI(K),AMU(J),EVMAX                       ,46
      IF (E(M))                 15,15,20                                ,47   ,48
   15 WRITE (6,104)                                                     ,49
      GO TO 25                                                          ,50   ,51
   20 WRITE (6,105)                                                     ,52
   25 EPSLON(1)=0.0                                                     ,53
      VX(1) = 0.0
      K1 = 0
C
C     CALCULATE INCREMENTS OF EPSLON                                     ,54
C                                                                       ,55
      DO 40 N = 1,300                                                   ,56
      IF (N-NNEND)              30,35,35                                ,57
   30 AINCR(N+1)=AINCR(N)                                               ,58
      GO TO 40                                                          ,59
   35 AINCR(N+1)=0.05                                                   ,60   ,61
   40 CONTINUE                                                          ,62
      DO 65 N = 1,300                                                   ,63
      IF (K1-1)                 45,55,60                                ,64
   45 IF(ABS(EVMAX-EPSLON(N))-AINCR(N))      50,50,60                   ,65
   50 AINCR(N)= EVMAX-EPSLON(N)                                         ,66
      K1=1                                                              ,67
      GO TO 60                                                          ,68
   55 AINCR(N) =ABS(AINCR(N-1)-AINCR(N-2))
      K1=2
C
C     EPSLON AND VX                                                     ,69
C                                                                       ,70
   60 EPSLON(N+1) =EPSLON(N)+AINCR(N)                                   ,71
      VX(N+1) = SQRT(2.0*EPSLON(N+1)/ACON)                              ,72   ,73
   65 CONTINUE                                                          ,74
      DELTVX(1)  =  0.0                                                 ,75
      EPSLNM(1)  =  0.0                                                 ,76
      DO 70 N = 1,300
```

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      DELTVX(N+1)  =  VX(N+1) - VX(N)
C
C     MEAN VALUE OF EPSLON AND VX
C                                                                          ,77
      EPSLNM(N+1)  =  EPSLON(N+1) - .5*AINCR(N)                            ,78
      VXM(V) = SQRT(2.0*EPSLNM(N)/ACON)
C
C     COMPUTE  M/2 * VXM **3
C                                                                          ,79
      VXMCU(N)=ACON /(2.0) * VXM(N)**3                                     ,80
   70 CONTINUE
C
C     RVX = NVX
C     SUMVX = INDIVIDUAL SUMS    , SUMVXI= TOTAL SUM TO INFINITY
C                                                                          ,81    ,82
      SUMVXI = 0.0                                                         ,83
      DO 150 N = 1,300                                                     ,84
      IF (T(I))              120,120,124                                   ,85
  120 IF(EPSLON(N)-AMU(J))   122,122,162                                   ,86
  122 RVX(N)=((4.0*3.14159*ACON**2*8.61727E-5*DELTVX(N)*((AMJ(J)-EPSLNM(
     1N))/8.61727E-5))/(PART1**2))/PART1                                   ,87
      GO TO 140                                                            ,88
  124 PART=4.0*3.14159*ACON**2*8.61727E-5*DELTVX(N)*T(I)                   ,89
      CONSTA = (AMU(J) - EPSLNM(N)) / (8.61727E-5 * T(I))                  ,90
      IF (CONSTA)            126,126,130                                   ,91
  126 IF (ABS(CONSTA)-88.028)          132,132,128                         ,92
  128 RVX(N) = 0.0                                                         ,93
      GO TO 140                                                            ,94
  130 IF(CONSTA-88.028)      132,132,134                                   ,95
  132 PART2 = DLOG(1.000+DEXP(CONSTA))                                     ,96
      GO TO 136                                                            ,97
  134 PART2 = CONSTA                                                       ,98
  136 IF (PART2)             139,138,139                                   ,99
  138 PART2 = DEXP(CONSTA)                                                 ,100
  139 RVX(N) = PART*PART2/(PART1**2)/PART1                                 ,101
  140 IF (N-1)               142,142,144                                   ,102
  142 SUMVX(1) = RVX(1)                                                    ,103
      GO TO 146                                                            ,104
  144 SUMVX(N) = SUMVX(N-1) + RVX(N)                                       ,105
  146 SUMVXI = SUMVXI + RVX(N)                                             ,106
      NN = N                                                               ,107
  150 CONTINUE
C
C     CALCULATE EPST
C                                                                          ,108   ,109
  162 IF (T(I))              200,350,200                                   ,110
  200 DO 330 N = 1,NN                                                      ,111
      SUMT     =  0.0                                                      ,112
      SUMN     =  0.0                                                      ,113
      JK  =  1                                                             ,114
      IF (EPSLNM(N)-AMU(J))  210,210,270                                   ,115
  210 XMIN  =  0.0                                                         ,116
      XMAX  =  88.000 * AKAPPA * T(I) + AMU(J) - EPSLNM(N)                 ,117
      CONST1(N)= -(EPSLNM(N)-AMU(J))/(AKAPPA*T(I))                         ,118
      IF (CONST1(N)-88.028)  230,230,220                                   ,119
  220 CIREYZ(N)=AMU(J)-EPSLNM(N)-88.000*AKAPPA*T(I)                        ,120
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      XMIN2=CIREYZ(N)                                                          ,121
      XMAX2=XMAX                                                               ,122
      KJJ=0                                                                    ,123
      CENTE(N)=SIMPS1(XMIN2,XMAX2,AINT,KJJ)                                    ,124
      EYZ(N)=CIREYZ(N)-(CIREYZ(N)*CIREYZ(N))/(2.0*(AMU(J)-EPSLNM(N)))+
     1AKAPPA*T(I)*CENTE(N)/(AMU(J)-EPSLNM(N))                                  ,125
      GO TO 260                                                                ,126
  230 KJ =  0                                                                  ,127
      ENTE(N)  =  SIMPS1(XMIN,XMAX,AINT,KJ)                                    ,128
      IF (ABS(CONST1(N)) - 88.028)      250,240,240                            ,129
  240 EYZ(N)  =  ENTE(N) / CONST1(N)                                           ,130
      GO TO 260                                                                ,131
  250 DEN(N)  =  ALOG(1.0 + EXP(CONST1(N)))                                    ,132
      EYZ(N)  =  ENTE(N) / DEN(N)                                              ,133
  260 EPST(N)  =  EYZ(N) + EPSLNM(N)                                           ,134
      GO TO 330                                                                ,135
  270 AX(N)  =  (EPSLNM(N)-AMU(J))/(AKAPPA*T(I))                               ,136
      TEM(N)  =  EXP(-FLOAT(JK)*AX(N))/FLOAT(JK*JK)                            ,137
      DENOM(N)=  EXP(-FLOAT(JK)*AX(N))/FLOAT(JK)                               ,138
      IF (TEM(N))               280,320,280                                    ,139
  280 IF (MOD(JK,2))            290,300,290                                    ,140
  290 SUMT  =  SUMT + TEM(N)                                                   ,141
      SUMN  =  SUMN + DENOM(N)                                                 ,142
      GO TO 310                                                                ,143
  300 SUMT  =  SUMT - TEM(N)                                                   ,144
      SUMN      =  SUMN - DENOM(N)                                             ,145
  310 JK  =  JK + 1                                                            ,146
      GO TO 270                                                                ,147
  320 EYZ(N)  =  (AKAPPA*T(I)) *(SUMT    / SUMN)                               ,148
      EPST(N)  =  EYZ(N) + EPSLNM(N)                                           ,149
  330 CONTINUE                                                                 ,150  ,151
      GO TO 370                                                                ,152
  350 DO 360 N = 1,NN                                                          ,153
      EPST(N)  =  (AMU(J) + EPSLNM(N)) / 2.0                                   ,154
  360 CONTINUE                                                                 ,155  ,156
  370 DO 380 N = 1,NN
C
C     TABULATE  INDIVIDUAL SUMS / TOTAL SUM
C                                                                              ,157
      THREE(N)=SUMVX(N)/SUMVXI                                                 ,158
  380 CONTINUE
C
C     START CALCULATION OF  D(N) AND  DM(N)
C                                                                              ,159  ,160
      DO 650 N = 1,NN                                                          ,161
      IF (E(M))                 400,570,400                                    ,162
  400 A=EPSLNM(N)                                                              ,163
  410 BETA =(AMU(J)+PHI(K)-A)                                                  ,164
      IF (EVMAX - EPSLNM(N)) 560,420,420                                       ,165
  420 CONST=SQRT(BETA*2.0*ACON)*2.0*2.0*3.14159*1.532E-19/6.6242E-34           ,166
      CON=(BETA/(2.0*E(M))-(ESQRD /(8.0*PHI(K))))                              ,167
      AROOT=(4.0*ESMALL/(ESQRD*E(M)-4.0*PHI(K)*BETA))**2                       ,168
      BROOT=PHI(K)*E(M)*(AMU(J)-A)                                             ,169
      ROOT=AROOT*BROOT                                                         ,170
      IF (EVMAX-EPSLNM(N))    560,430,440                                      ,171
  430 X1(N)=CON                                                                ,172
```

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      X2(N)=CON                                                                    ,173
      GO TO 450                                                                    ,174
  440 X1(N)=CON*(1.0-SQRT(1.0+ROOT))                                               ,175
      X2(N)=CON*(1.0+SQRT(1.0+ROOT))                                               ,176
  450 IF(X1(N))                 460,470,470                                        ,177
  460 X1(N)=0.0                                                                    ,178
  470 ANTVL=(X2(N)-X1(N))/100.                                                     ,179
      X(1)  =  X1(N)                                                               ,180
      DO 510 L = 1,101                                                             ,181
      CHECK=1.0-(E(M)*X(L) /BETA)-ESQRD/(BETA*(4.0*X(L) +ESQRD/PHI(K)))            ,182
      IF(CHECK)                 480,490,490                                        ,183
  480 ARG(L) = 0.0                                                                 ,184
      GO TO 500                                                                    ,185
  490 ARG(L)=SQRT(CHECK)                                                           ,186
  500 X(L+1)  =  X(L) +ANTVL                                                       ,187
      IF (X(L) -X2(N))          510,510,520                                        ,188
  510 CONTINUE                                                                     ,189  ,190
  520 CALL ENTGRL(101,ANTVL,ARG,ANS)                                               ,191
      ANS(101)=ANS(101)                                                            ,192
      CONAN=ABS(CONST*ANS(101))
C
C     CALCULATE   DM(N) USING MEAN VALUES
C
  530 IF(CONAN-88.028)          550,550,540                                        ,193
  540 DM(N)=0.0                                                                    ,194
      GO TO 600                                                                    ,195
  550 DM(N)=EXP(-CONST*ANS(101))                                                   ,196
      GO TO 600                                                                    ,197
  560 DM(N)=1.0                                                                    ,198
      GO TO 600                                                                    ,199
  570 IF (EPSLON(N)-(AMU(J)+PHI(K)))   580,580,590                                 ,200
  580 DM(N)   =  0.0                                                               ,201
      GO TO 600                                                                    ,202
  590 DM(N)   =  1.0                                                               ,203
  600 CONTINUE                                                                     ,204
  650 CONTINUE                                                                     ,205
C
C     SUMDV = INDVIDUAL SUMS OF D(VXM)N(VXM)DELTAVX
C     SUMDVI= TOTAL SUM OF D(VXM)N(VXM)DELTAVX1  =  NEF
C     SUMTEN = VXAV
C     SUMEL = KEXAV
C     SUMTW = KEXAL
C
                                                                                   ,206  ,207
      SUMDV(1) = 0.0                                                               ,208
      SUMDVI = 0.0                                                                 ,209
      DO 750 N = 1,NN                                                              ,210
      DNVXM(N)=DM(N)*RVX(N)                                                        ,211
      IF (N-1)                  700,700,710                                        ,212
  700 SUMDV(1) = DNVXM(1)                                                          ,213
      GO TO 720                                                                    ,214
  710 SUMDV(N) = SUMDV(N-1) + DNVXM(N)                                             ,215
  720 SUMDVI = SUMDVI + DNVXM(N)                                                   ,216
  750 CONTINUE                                                                     ,217  ,218
      DO 800 N = 1,NN                                                              ,219
      SIX(N)=SUMDV(N)/SUMDVI                                                       ,220
  800 CONTINUE                                                                     ,221  ,222
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      SUMTEN=0.0                                                              ,223
      DO 850 N = 1,NN                                                         ,224
      TEN(N)  =  DNVXM(N) * VXM(N) / SUMDVI                                   ,225
      SUMTEN=SUMTEN+TEN(N)                                                    ,226
  850 CONTINUE                                                                ,227  ,228
      SUMEL=0.0                                                               ,229
      DO 900 N = 1,NN                                                         ,230
      EL(N)  =  DNVXM(N) * ACON * VXM(N)**2/2.0/SUMDVI                        ,231
      SUMEL=SUMEL+EL(N)                                                       ,232
  900 CONTINUE                                                                ,233  ,234
      SUMTW=0.0                                                               ,235
      DO 950 N = 1,NN                                                         ,236
      TWEL(N)  =  DNVXM(N) * ACON * VXM(N)**3/2.0/SUMDVI                      ,237
      SUMTW=SUMTW+TWEL(N)                                                     ,238
  950 CONTINUE
C
C     KETAV  ,  KETEL                                                         ,239  ,240
C
      KETAV  =  0                                                             ,241
      DO 1000 N = 2,NN                                                        ,242
      SKETAV(N)  =  EPST(N) * (SIX(N)-SIX(N-1))                               ,243
      KETAV  =  KETAV + SKETAV(N)                                             ,244
 1000 CONTINUE                                                                ,245  ,246
      KETEL  =  0                                                             ,247
      DO 1050 N = 2,NN                                                        ,248
      SKETEL(N)=  VXM(N)*EPST(N)*(SIX(N)-SIX(N-1))                            ,249
      KETEL  =  KETEL + SKETEL(N)                                             ,250
 1050 CONTINUE
C
C     THIRT = J
C     TZERO  ,  TD  ,  NEM                                                    ,251  ,252
C
      THIRT = SUMDVI*SUMTEN*1.602E-19                                         ,253
      TZERO  =  2.0 * KETAV / (3.0 * AKAPPA)                                  ,254
      TD  =  2.0 * (KETAV -ACON* SUMTEN**2/2.0) / (3.0 * AKAPPA)              ,255
      QONE=SUMDVI*(2.0*8.61727E-5*T(I)*SUMTEN/3.0 + SUMTW)                    ,256
      QTWO=QONE*1.602E-19/4.184                                               ,257
      NEM  =  2.0 * SUMVXI
C
C     PNEX  ,  JEXD
C     PNET  ,  JETD
C                                                                             ,258
      DO 1200 N = 1,NN                                                        ,259
      CONST1(N)=-(EPSLNM(N)-AMU(J))/(AKAPPA*T(I))                             ,260
      PNEX(N)=DNVXM(N)/(ACON*VXM(N)*DELTVX(N))                                ,261
      JEXD(N)=PNEX(N)*VXM(N)*1.602E-19                                        ,262
      IF (T(I))                1130,1130,1100                                 ,263
 1100 IF (CONST1(N))           1110,1110,1120                                 ,264
 1110 IF(ABS(CONST1(N))-17.000)        1140,1140,1150                         ,265
 1120 IF(CONST1(N)-88.028)   1140,1140,1130                                   ,266
 1130 PNET(N) = 2.0  *PNEX(N)                                                 ,267
      JETD(N) = 2.0   *JEXD(N)                                                ,268
      GO TO 1200                                                              ,269
 1140 DEN(N) = DLOG(1.0D0+DEXP(CONST1(N)))                                    ,270
      SAVE(N)=(1.0+EXP(-CONST1(N)))                                           ,271
      PNET(N) = (PNEX(N)*AKAPPA*T(I)*SAVE(N)*DEN(N))/EYZ(N)                   ,272
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      JETD(N) = (JEXD(N)*AKAPPA*T(I)*SAVE(N)*DEN(N))/EYZ(N)                          ,273
      GO TO 1200                                                                     ,274
 1150 PNET(N)=PNEX(N)                                                                ,275
      JETD(N)=JEXD(N)                                                                ,276
 1200 CONTINUE
C
C     WRITE OUT ANSWERS
C
      KTEST  =  0                                                                    ,277  ,278
      N1OUT=0                                                                        ,279
      IF (E(M) - 1.0E+6)        2000,2000,2010                                       ,280
 2000 IF (T(I))                 2010,2230,2010                                       ,281
 2010 DO 2220 N = 2,NN                                                              ,282
 2020 IF (SIX(N) - 1.0E-5)      2220,2030,2030                                       ,283
 2030 IF (E(M))                 2150,2150,2040                                       ,284
 2040 IF (DM(N))                2050,2220,2050                                       ,285
 2050 IF (SIX(N)-1.0)           2090,2060,2060                                       ,286
 2060 IF(EPSLON(N)-AMU(J))      2090,2090,2070                                       ,287
 2070 IF(N1OUT)                 2080,2080,2220                                       ,288
 2080 N1OUT =1                                                                      ,289
 2090 IF (EPSLON(N)-EVMAX)      2100,2130,2140                                       ,290
 2100 IF (KTEST)                2120,2110,2120                                       ,291
 2110 NCOUNT  =  N                                                                  ,292
      KTEST=1                                                                       ,293
 2120 WRITE (6,106) EPSLON(N),EPST(N),X1(N),X2(N),DM(N),SIX(N),PNEX(N),             ,294
     1JEXD(N),PNET(N),JETD(N)
      NSTOP  =  N                                                                   ,295  ,296  ,297
      GO TO 2220                                                                    ,298
 2130 WRITE (6,106) EPSLON(N),EPST(N),X1(N),X2(N),DM(N),SIX(N),PNEX(N),             ,299
     1JEXD(N),PNET(N),JETD(N)
      NSTOP  =  N                                                                   ,300  ,301  ,302
      GO TO 2220                                                                    ,303
 2140 WRITE (6,107) EPSLON(N),EPST(N),SIX(N),PNEX(N),JEXD(N),PNET(N),JET            ,304
     1D(N)
      NSTOP  =  N                                                                   ,305  ,306  ,307
      GO TO 2220                                                                    ,308
 2150 IF (DM(N))                2160,2220,2160                                       ,309
 2160 IF (SIX(N)-1.0)           2170,2220,2220                                       ,310
 2170 IF (EPSLON(N)-EVMAX)      2180,2210,2180                                       ,311
 2180 IF (KTEST)                2200,2190,2200                                       ,312
 2190 NCOUNT = N                                                                    ,313
      KTEST=1                                                                       ,314
 2200 WRITE (6,108) EPSLON (N),EPST(N),DM(N),SIX(N),PNEX(N),JEXD(N),PNET            ,315
     1(N),JETD(N)
      NSTOP  =  N                                                                   ,316  ,317  ,318
      GO TO 2220                                                                    ,319
 2210 WRITE (6,108) EPSLON(N),EPST(N),DM(N),SIX(N),PNEX(N),JEXD(N),PNET(            ,320
     1N),JETD(N)
      NSTOP  =  N                                                                   ,321  ,322  ,323
 2220 CONTINUE                                                                      ,324
      GO TO 2260                                                                    ,325  ,326
 2230 DO 2250 N = 1,NN                                                              ,327
      IF(EPSLON(N)-AMU(J))      2240,2240,2250                                      ,328
 2240 WRITE (6,106) EPSLON(N),EPST(N),X1(N),X2(N),DM(N),SIX(N),PNEX(N),             ,329
     1JEXD(N),PNET(N),JETD(N)
 2250 CONTINUE                                                                      ,330  ,331  ,332
                                                                                    ,333  ,334
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 2260 WRITE (6,109) NEM    ,SUMDVI,SUMTEN,SUMEL,SUMTW                          ,335  ,336  ,337
      WRITE (6,110) THIRT,KETAV,KETEL,TZERO,TD                                 ,338  ,339  ,340
      WRITE (6,103) T(I),E(M),PHI(K),AMU(J),EVMAX                              ,341  ,342  ,343
      WRITE (6,109) NEM    ,SUMDVI,SUMTEN,SUMEL,SUMTW                          ,344  ,345  ,346
      WRITE (6,110) THIRT,KETAV,KETEL,TZERO,TD                                 ,347  ,348  ,349
      IF (E(M)-1.0E+6)        2270,2270,2280                                   ,350
 2270 IF (T(I))               2280,2800,2280                                   ,351
 2280 CALL PLOT1                                                               ,352
 2800 CONTINUE                                                                 ,353  ,354
 2900 CONTINUE                                                                 ,355  ,356
 3000 CONTINUE                                                                 ,357  ,358
 3100 CONTINUE                                                                 ,359  ,360
      GO TO 2                                                                  ,361
      END                                                                      ,362
```

```
$IBFTC AINT    DEBUG
      FUNCTION AINT(X)
      COMMON       N,AMU(10),J,T(10),I,AKAPPA
      COMMON       EPSLNM(350)
      ANN=(EPSLNM(N)+X-AMU(J))/(AKAPPA*T(I))                                   ,1
      AINT=ALOG(1.0+EXP(-ANN))                                                 ,2
      RETURN                                                                   ,3
      END                                                                      ,4
```

```
$IBFTC PLOT1   DEBUG
      SUBROUTINE PLOT1
      COMMON /MP/ PNEX(350),JEXD(350),EPSLON(350),EPST(350),NN,NCOUNT,
     1            NSTOP,PNET(350),JETD(350)
      COMMON      N,AMU(10),J,T(10),I,AKAPPA
      COMMON      EPSLNM(350)
      DIMENSION P(10) , YSTOP(300)
      DIMENSION Y(500),X(500),YA(500),XA(500),YB(500),XB(500),YC(500),
     1 XC(500)
      REAL  JEXD ,JETD
      WRITE (6,10)                                                    ,1    ,2
   10 FORMAT (2HPT)
      DO  5 K= NCOUNT,NSTOP                                           ,3
      Y(K)  =  PNEX(K)                                                ,4
      X(K)=EPSLNM(K)                                                  ,5
    5 CONTINUE                                                        ,6    ,7
      KODE=64                                                         ,8
      NP  =  NSTOP - NCOUNT +1                                        ,9
      P(1)=NP                                                         ,10
      CALL SCALE (NP,Y(NCOUNT),KRSTR)                                 ,11
      CALL PLOTXY (X(NCOUNT),Y    (NCOUNT),KODE,P)                    ,12
      WRITE (6,11)                                                    ,13   ,14
   11 FORMAT (2HPL,56X,17HPN(EX) VS. EPSLON)
      WRITE(6,10)                                                     ,15   ,16
      DO 15 K= NCOUNT,NSTOP                                           ,17
      YA(K)=PNET(K)                                                   ,18
      XA(K)=EPST(K)                                                   ,19
   15 CONTINUE                                                        ,20   ,21
      CALL SCALE (NP,YA(NCOUNT),KRSTR)                                ,22
      CALL PLOTXY (XA(NCOUNT),YA   (NCOUNT),KODE,P)                   ,23
      WRITE(6,21)                                                     ,24   ,25
   21 FORMAT (2HPL,57X,15HPN(ET) VS. EPST)
      WRITE(6,10)                                                     ,26   ,27
      DO 25 K= NCOUNT,NSTOP                                           ,28
      YB(K)=JEXD(K)                                                   ,29
      XB(K)=EPSLNM(K)                                                 ,30
   25 CONTINUE                                                        ,31   ,32
      CALL SCALE (NP,YB(NCOUNT),KRSTR)                                ,33
      CALL PLOTXY(XB(NCOUNT),YB   (NCOUNT),KODE,P)                    ,34
      WRITE (6,31)                                                    ,35   ,36
   31 FORMAT (2HPL,53X,22HJ(EX)/DELEX VS. EPSLON)
      WRITE(6,10)                                                     ,37   ,38
      DO 35 K= NCOUNT,NSTOP                                           ,39
      YC(K)=JETD(K)                                                   ,40
      XC(K)=EPST(K)                                                   ,41
   35 CONTINUE                                                        ,42   ,43
      CALL SCALE (NP,YC(NCOUNT),KRSTR)                                ,44
      CALL PLOTXY (XC(NCOUNT),YC   (NCOUNT),KODE,P)                   ,45
      WRITE (6,41)                                                    ,46   ,47
   41 FORMAT (2HPL,54X,20HJ(ET)/DELET VS. EPST)
      RETURN                                                          ,48
      END                                                             ,49
```

```
                                M E M O R Y   M A P

SYSTEM                                                          00000 THRU  02717

FILE BLOCK ORIGIN                                               02720

     NUMBER OF FILES -   2

     1.  UNIT05
     2.  UNIT06

FILE LIST ORIGIN                                                02750

PRE-EXECUTION INITIALIZATION                                    02754

CALL ON OBJECT PROGRAM                                          02777

OBJECT PROGRAM                                                  03004 THRU  70753

     1.  DECK 'MAINJM'  *          03004
     2.  DECK 'AINT  '  *          41176
     3.  DECK 'PLOT1 '  *          41260
     4.  SUBR '.IBSYS'             00000
     5.  SUBR '.LRCON'             00000
     6.  SUBR '.IOEX '             00702
     7.  SUBR '.JBCON'             02652
     8.  SUBR '.LXCON'             52171
     9.  SUBR '.IODEF'             52525
    10.  SUBR '.IOCSF'             52744
    11.  SUBR '.LXSL '             55237
    12.  SUBR '.FPTRP'             55376
    13.  SUBR '.ERAS.'             56042
    14.  SUBR 'FOUT  '             56046
    15.  SUBR 'FCNV  '             56114
    16.  SUBR 'FIOS  '             57636
    17.  SUBR 'FIOH  '             60021
    18.  SUBR 'FSEL  '             60764
    19.  SUBR 'FWRD  '             61051
    20.  SUBR 'FRDD  '             61100
    21.  SUBR 'UN05  '             61132
    22.  SUBR 'UN06  '             61133
    23.  SUBR 'FLOG  '             61136
    24.  SUBR 'FXPF  '             61253
    25.  SUBR 'FSQR  '             61355
    26.  SUBR 'FXP2  '             61453
    27.  SUBR 'FXP3  '             61546
    28.  SUBR '.IOE. '             61635
    29.  SUBR '.IOE56'             61656
    30.  SUBR '.LOGER'             61672
    31.  SUBR '.NGDEF'  *          61677
    32.  SUBR '.RWDOE'             61703
    33.  SUBR '.SQRTN'  *          61723
    34.  SUBR '.TLEXP'             61730
    35.  SUBR '.XEXP '  *          61733
    36.  SUBR '.ZUDEF'  *          61737
```

```
   37.  SUBR 'PISTUG'  *          61743
   38.  SUBR 'PLOTXY'  *          62530
   39.  SUBR 'KHAR    '  *       64333
   40.  SUBR 'SCALE   '  *       64375
   41.  SUBR 'FDXP    '  *       64546
   42.  SUBR 'DLOG10'  *          65013
   43.  SUBR 'FDX1    '  *       65261
   44.  SUBR 'SIMPS1'  *          65450
   45.  SUBR 'FNTGRL'  *          70636
   46.  SUBR '//      '           77212

   (* - INSERTIONS OR DELETIONS MADE IN THIS DECK)

INPUT - OUTPUT BUFFERS                          70754 THRU  77207

UNUSED CORE                                     77210 THRU  77211

  BEGIN EXECUTION.
```

REFERENCES

1. Morris, J. F.: Thermal, Field Emission with a Terminated Image Potential, NASA TN D-2784, 1965.

2. Dyke, W. P.; and Dolan, W. W.: Field Emission. Vol. VIII of Advances in Electronics and Electron Physics, L. Marton, ed., Academic Press, Inc., 1956, pp. 89-185.

3. Bohm, D.: Quantum Theory. Prentice-Hall, Inc., 1951.

4. Sommerfeld, A.; und Bethe, H.: Elektronentheorie der Matelle. Handbuch der Physik, vol. 24, pt. 2, Springer-Verlag (Berlin), 1933, pp. 333-622.

5. Avak'yants, G. M.: Theory of Electron Emission from a Metal in an Electric Field. Trudy Fiz.-Tekh. Inst. Akad, Nauk Uzbek S. S. R., vol. 6, 1955, pp. 43-53.

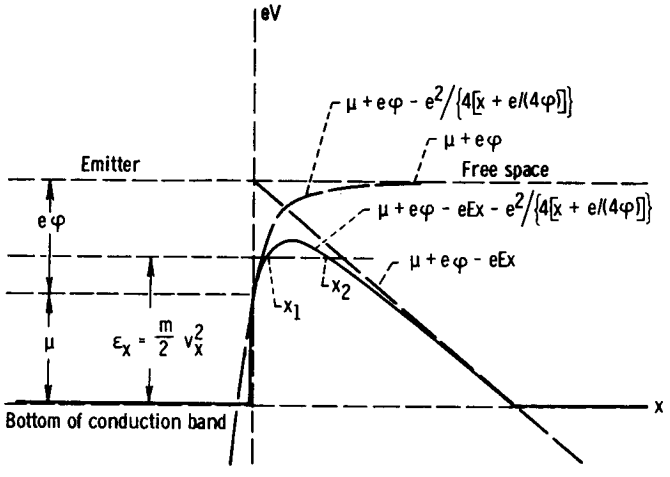


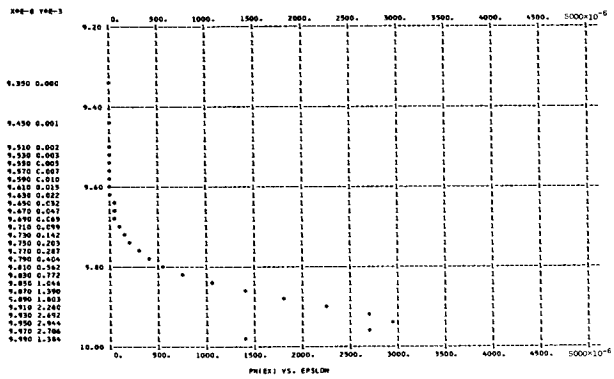
Figure 1. - Terminated image potential barrier.

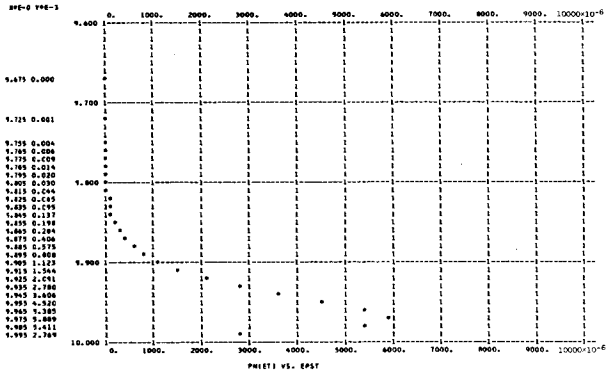
T = 0. E = 0.10000002E 08 PHI = 4.00 AMU = 10.00 EVMAX = 12.8901

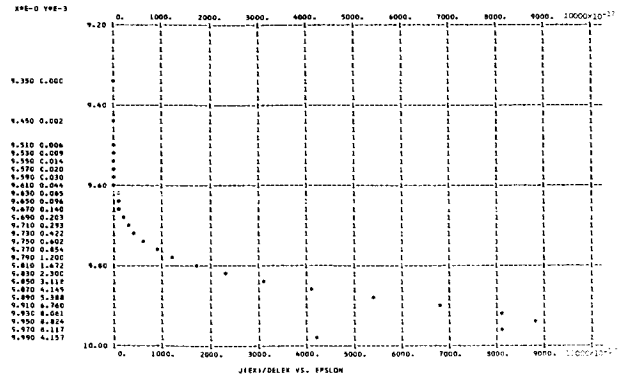
EPSX	EPST(VXM)	X1	X2	P(VXM)	PNDV	PN(EX)	J(EX)/DEX	PN(ET)	J(ET)/DET
9.40000E 00	9.67500E 00	0.	4.57280E-07	2.17006E-28	2.36213E-05	7.86090E-08	2.28377E-18	1.57218E-07	4.56754E-18
9.50000E 00	9.72500E 00	0.	4.47108E-07	2.03995E-27	1.88066E-04	6.21957E-07	1.81656E-17	1.24391E-06	3.63313E-17
9.52000E 00	9.75500E 00	0.	4.41001E-07	7.74361E-27	2.98940E-04	2.09674E-06	6.14339E-17	4.19347E-06	1.22868E-16
9.54000E 00	9.76500E 00	0.	4.38965E-07	1.20581E-26	4.64371E-04	3.12843E-06	9.17586E-17	6.25686E-06	1.83517E-16
9.56000E 00	9.77500E 00	0.	4.36928E-07	1.87600E-26	7.10534E-04	4.65520E-06	1.36683E-16	9.31041E-06	2.73366E-16
9.58000E 00	9.78500E 00	0.	4.34891E-07	2.91664E-26	1.07586E-03	6.90862E-06	2.03058E-16	1.38172E-05	4.06117E-16
9.60000E 00	9.79500E 00	0.	4.32854E-07	4.53007E-26	1.61632E-03	1.02206E-05	3.00717E-16	2.04411E-05	6.01434E-16
9.62000E 00	9.80500E 00	0.	4.30816E-07	7.02943E-26	2.41322E-03	1.50702E-05	4.43868E-16	3.01404E-05	8.87737E-16
9.64000E 00	9.81500E 00	0.	4.28778E-07	1.09009E-25	3.58442E-03	2.21485E-05	6.53029E-16	4.42971E-05	1.30606E-15
9.66000E 00	9.82500E 00	0.	4.26739E-07	1.68856E-25	5.29879E-03	3.24202E-05	9.56872E-16	6.48405E-05	1.91374E-15
9.68000E 00	9.83500E 00	0.	4.24700E-07	2.61344E-25	7.79798E-03	4.72618E-05	1.39636E-15	9.45236E-05	2.79272E-15
9.70000E 00	9.84500E 00	0.	4.22661E-07	4.04180E-25	1.14251E-02	6.85917E-05	2.02865E-15	1.37183E-04	4.05731E-15
9.72000E 00	9.85500E 00	0.	4.20622E-07	6.24529E-25	1.66625E-02	9.90462E-05	2.93239E-15	1.98092E-04	5.86478E-15
9.74000E 00	9.86500E 00	0.	4.18582E-07	9.64215E-25	2.41834E-02	1.42226E-04	4.21511E-15	2.84452E-04	8.43023E-15
9.76000E 00	9.87500E 00	0.	4.16541E-07	1.48748E-24	3.49153E-02	2.02948E-04	6.02091E-15	4.05897E-04	1.20418E-14
9.78000E 00	9.88500E 00	0.	4.14501E-07	2.29274E-24	5.01179E-02	2.87497E-04	8.53796E-15	5.74994E-04	1.70759E-14
9.80000E 00	9.89500E 00	0.	4.12459E-07	3.53075E-24	7.14720E-02	4.03826E-04	1.20049E-14	8.07652E-04	2.40099E-14
9.82000E 00	9.90500E 00	0.	4.10418E-07	5.43375E-24	1.01175E-01	5.61718E-04	1.67158E-14	1.12344E-03	3.34316E-14
9.84000E 00	9.91500E 00	0.	4.08376E-07	8.35544E-24	1.42001E-01	7.72045E-04	2.29982E-14	1.54409E-03	4.59963E-14
9.86000E 00	9.92500E 00	0.	4.06333E-07	1.28382E-23	1.97293E-01	1.04564E-03	3.11798E-14	2.09127E-03	6.23596E-14
9.88000E 00	9.93500E 00	0.	4.04291E-07	1.97131E-23	2.70801E-01	1.39010E-03	4.14932E-14	2.78019E-03	8.29865E-14
9.90000E 00	9.94500E 00	0.	4.02247E-07	3.02514E-23	3.66154E-01	1.80321E-03	5.38789E-14	3.60642E-03	1.07758E-13
9.92000E 00	9.95500E 00	0.	4.00204E-07	4.63886E-23	4.85666E-01	2.26009E-03	6.75985E-14	4.52018E-03	1.35197E-13
9.94000E 00	9.96500E 00	0.	3.98159E-07	7.11182E-23	6.28034E-01	2.69227E-03	8.06060E-14	5.38454E-03	1.61212E-13
9.96000E 00	9.97500E 00	0.	3.96115E-07	1.08999E-22	7.83733E-01	2.94444E-03	8.82446E-14	5.88888E-03	1.76489E-13
9.98000E 00	9.98500E 00	0.	3.94070E-07	1.67082E-22	9.26799E-01	2.70551E-03	8.11655E-14	5.41103E-03	1.62331E-13
1.00000E 01	9.99500E 00	0.	3.92024E-07	2.56660E-22	1.00000E-00	1.38429E-03	4.15705E-14	2.76859E-03	8.31409E-14

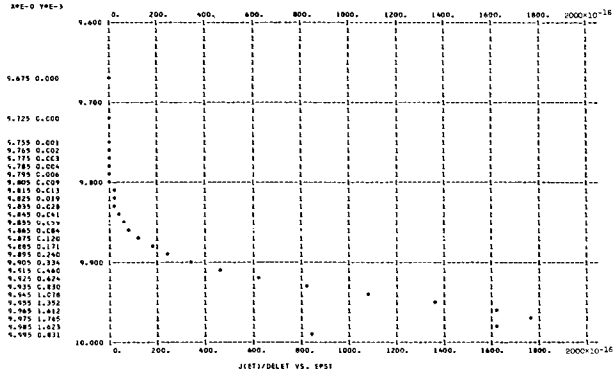
NEM = 0.14365732E 24 NEE = 0.37821816E-03 VXAV = 0.18667537E 09 KEXAV = 0.99073083E 01 KEXFL = 0.18494914E 10

J = 0.113108E-13 KETAV= 0.995365E 01 KETFL= 0.185812E 10 TZERO = 0.770055E 05 TD = 0.359403E 03







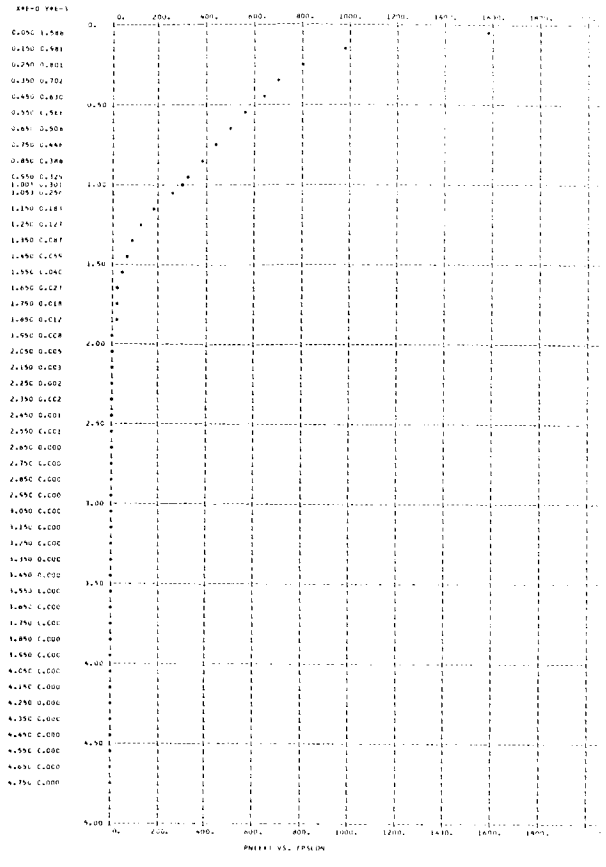


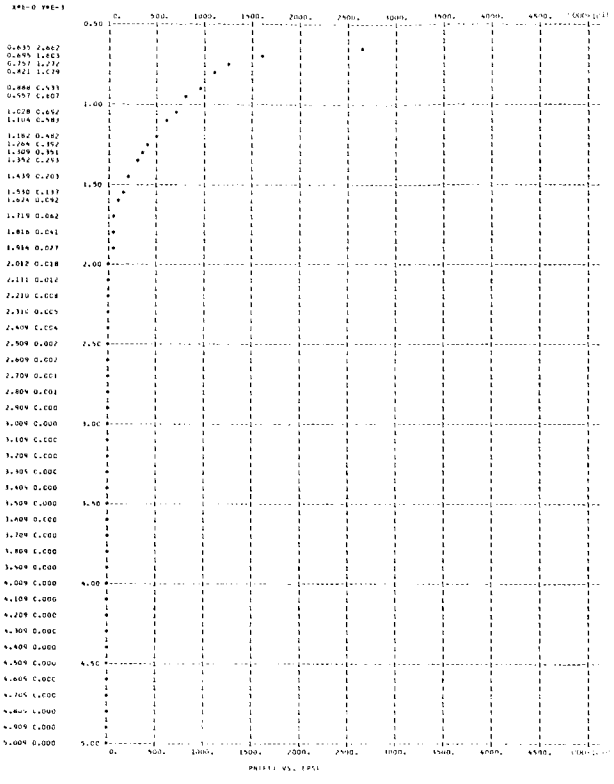
T = 0. E = 0.10000002E 08 PHI = 4.00 AMU = 10.00 EVMAX = 12.8901

NEM = 0.14365732E 24 NEE = 0.37821816E-03 VXAV = 0.18667537E 09 KEXAV = 0.99073083E 01 KEXFL = 0.18494914E 10

J = 0.113108E-13 KETAV= 0.995365E 01 KETFL= 0.185812E 10 TZERO = 0.770055E 05 TD = 0.359403E 03

Figure 2. - Sample of complete IBM output sheets.



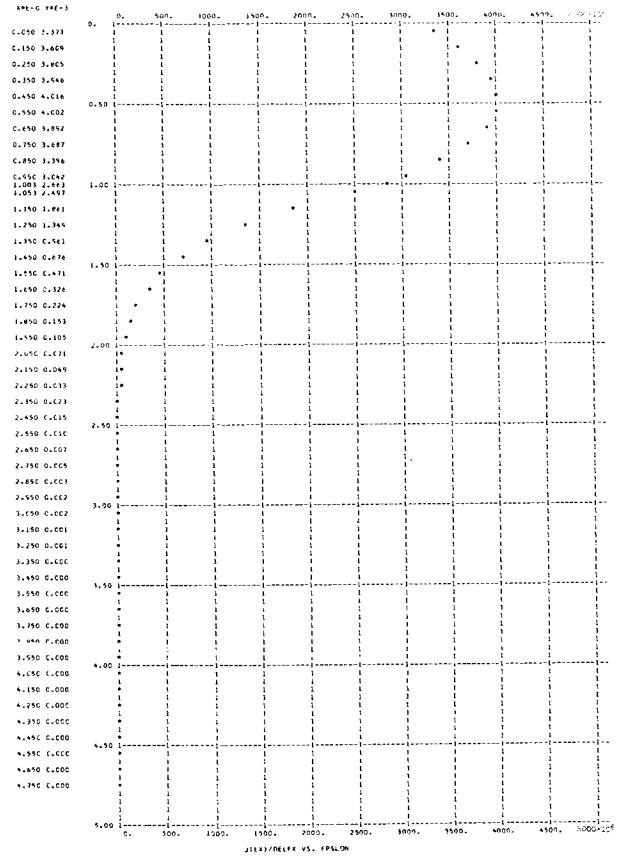


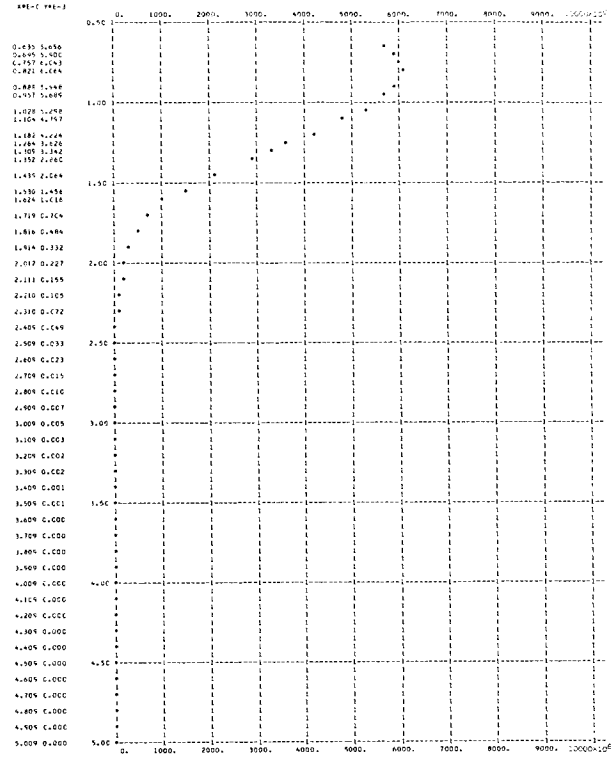
T = 0.30000000E 04 E = 0.1C000002E 09 PHI = 2.00 AMU = 1.00 EVMAX = 1.0053

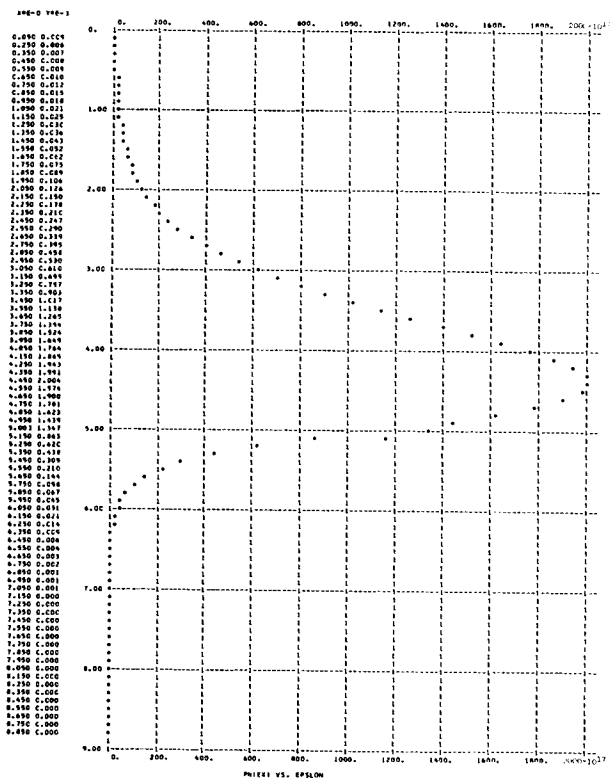
NEM = 0.49014490E 22 NEE = 0.84568150E 21 VXAV = 0.34791286E 08 KEXAV = 0.43370331E-00 KEXFL = 0.21864102E 08

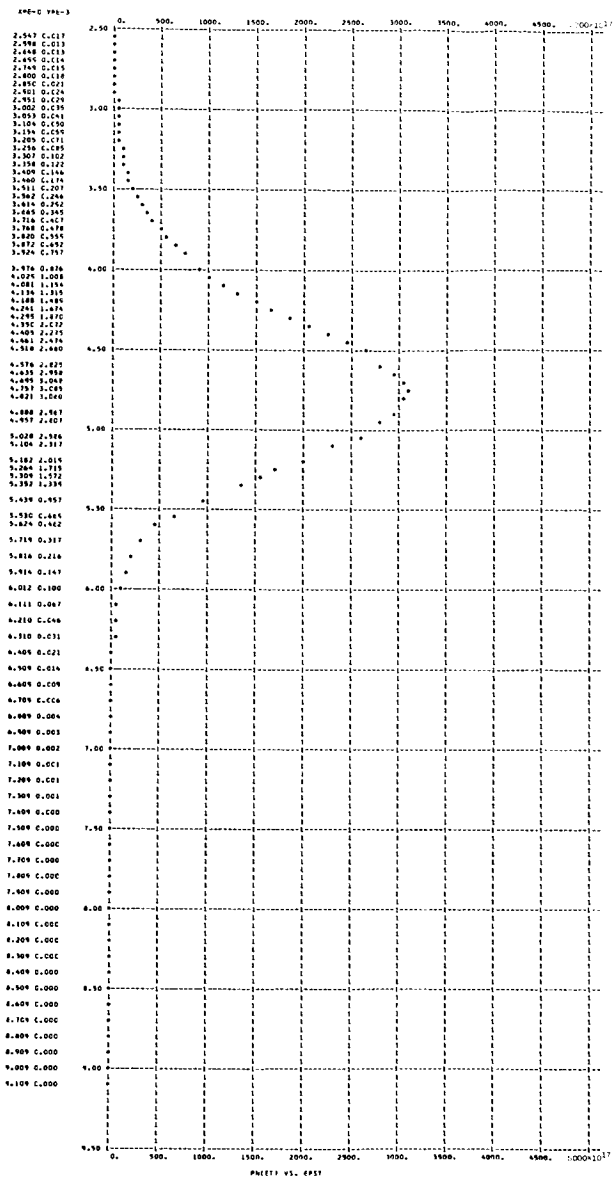
J = 0.471346E 10 KETAV= 0.897721E 00 KETFL= 0.361517E 08 TZERO = 0.694513E 04 TD = 0.428283E 04

Figure 3. - Characteristics of thermal, field emission.


JIEXJ/DELFE VS. EPSLON


JIETJ/DELET VS. EPST



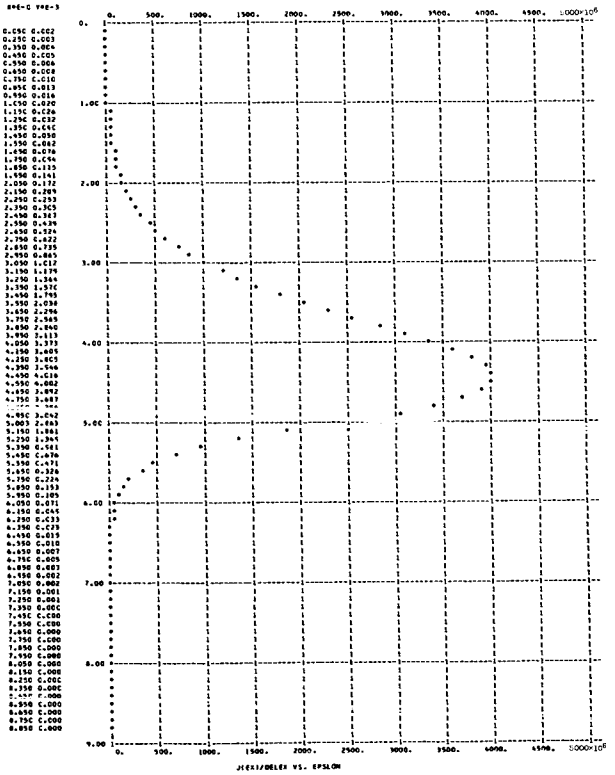


T = 0.30000000E 04 E = C.1C000002E 09 PHI = 2.00 AMU = 5.00 EVMAX = 5.0053

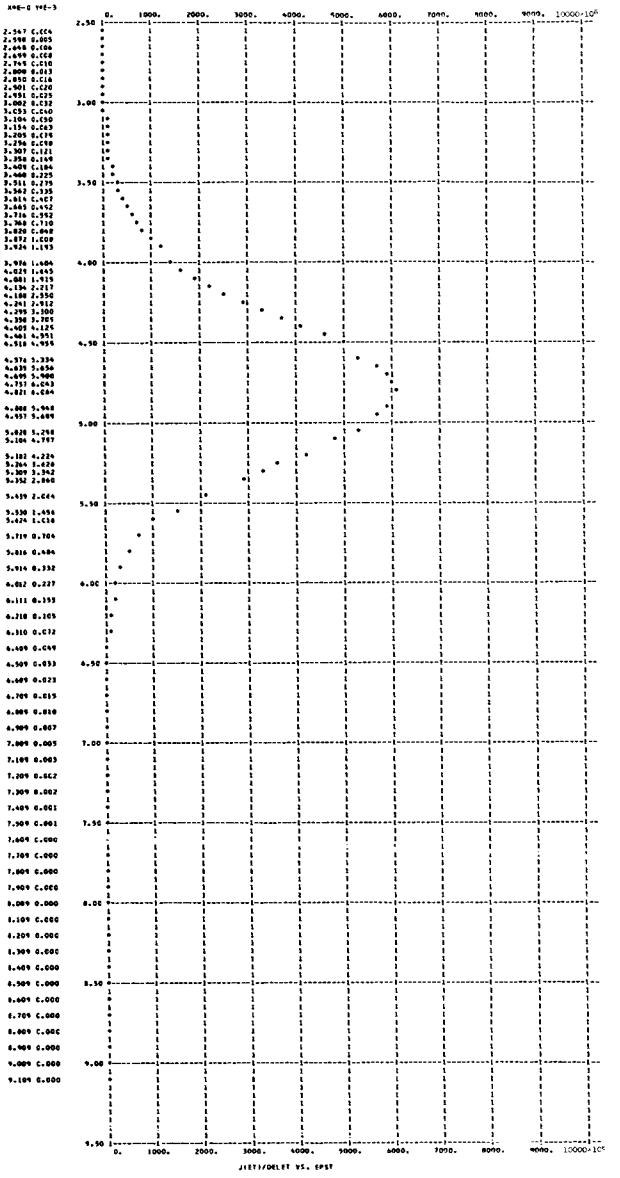
NEM = 0.50929843E 23 NEE = 0.36908211E 21 VXAV = 0.11944921E 09 KEXAV = 0.41049357E 01 KEXFL = 0.50097755E 09

J = 0.706267E 10 KETAV= 0.471579E 01 KETFL= 0.569826E 09 TZERO = 0.364833E 05 TD = 0.510114E 04

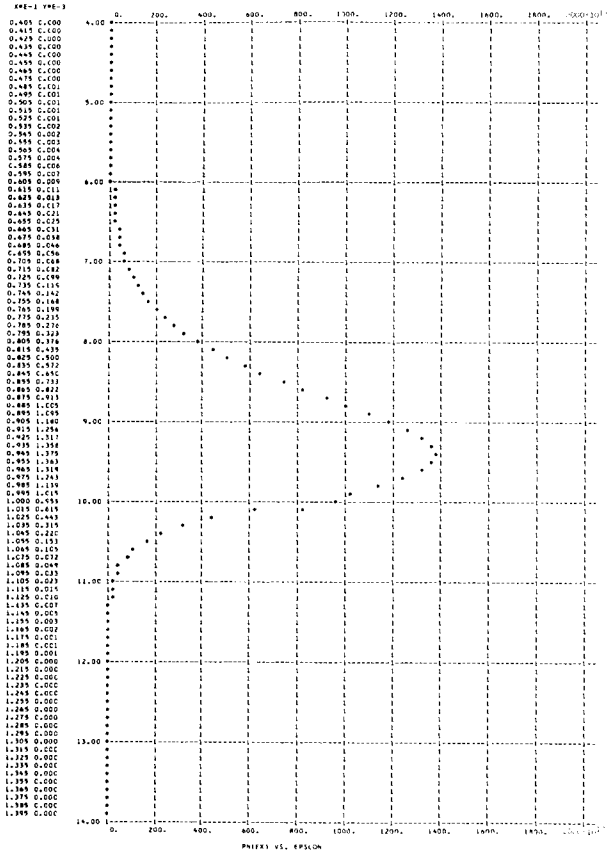
Figure 3. - Continued.

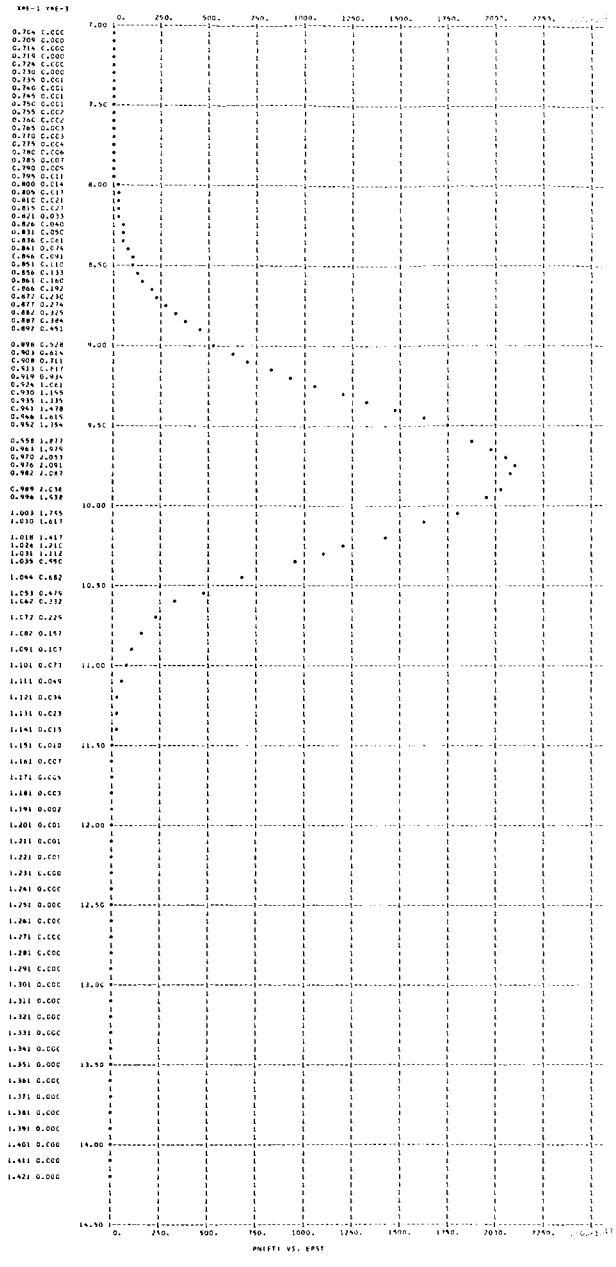


J(EXT)/DELEX VS. EPSLON



J(ET)/DELET VS. EPST



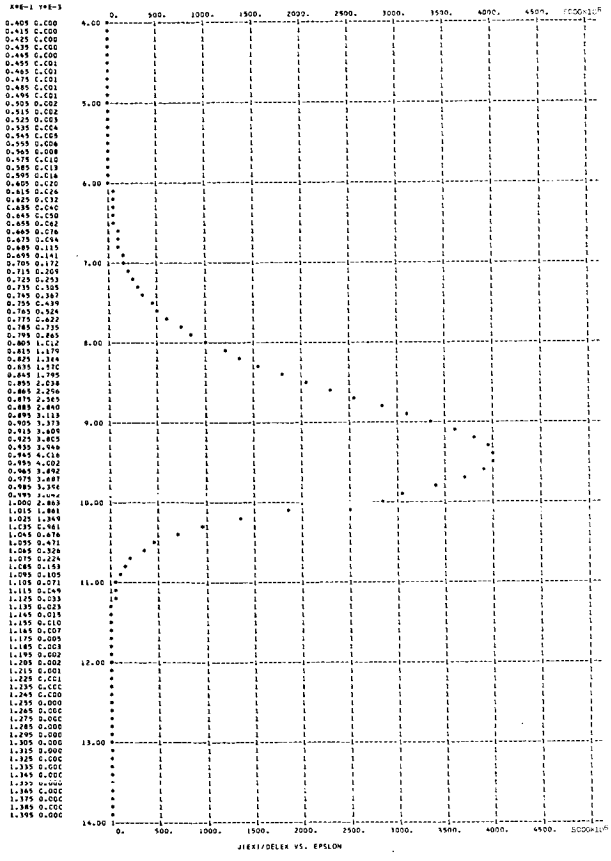


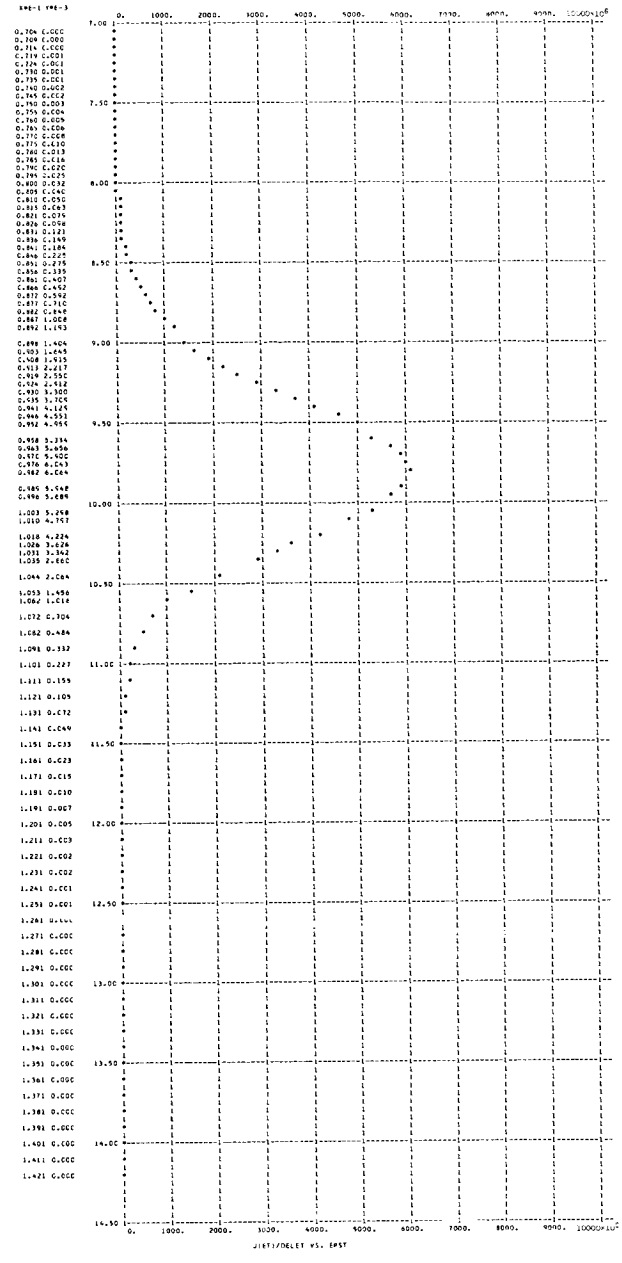
T = 0.300000C0E 04 E = 0.1C000002E 09 PHI = 2.00 AMU = 10.00 EVMAX = 10.0053

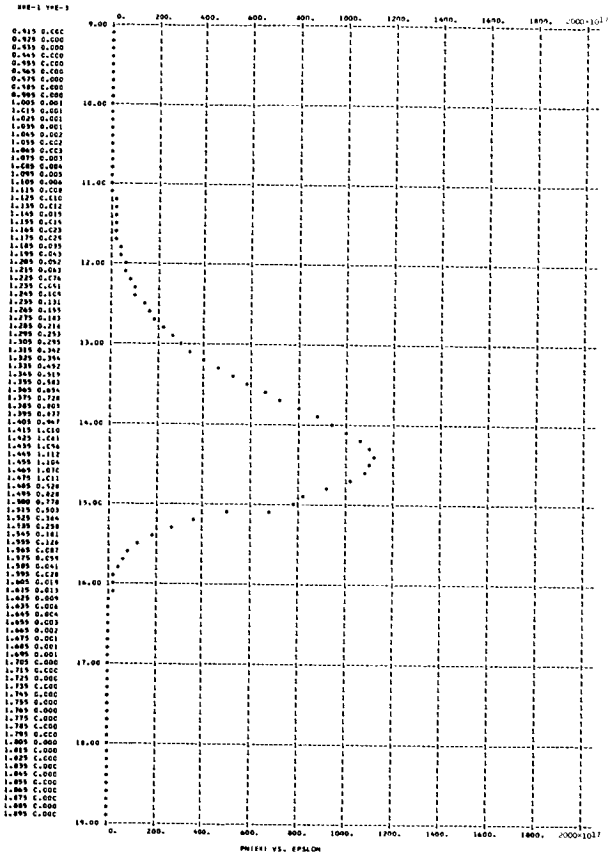
NEM = 0.14377540E 24 NEE = 0.24587175E 21 VXAV = 0.17931756E 09 KEXAV = 0.91592062E 01 KEXFL = 0.16485962E 10

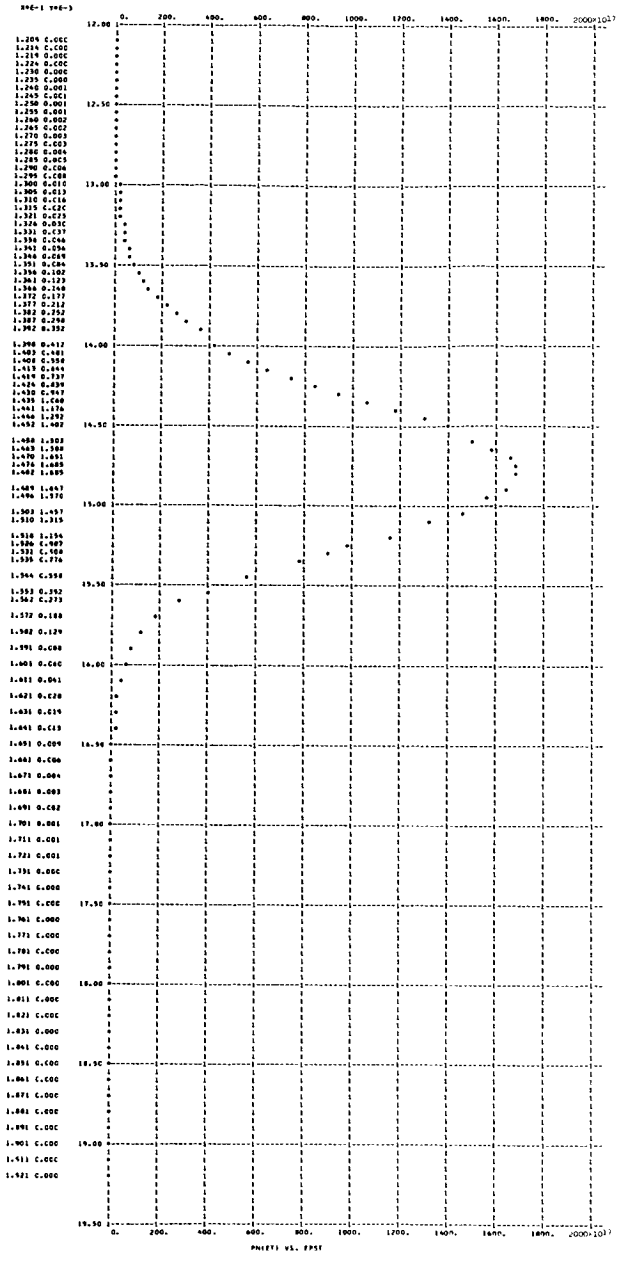
J = 0.706308E 10 KETAV= 0.974862E 01 KETFL= 0.175198E 10 TZERO = 0.754192E 05 TD = 0.469611E 04

Figure 3. - Continued.


0. 500. 1000. 1500. 2000. 2500. 3000. 3500. 4000. 4500.
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
13.00
14.00
0. 500. 1000. 1500. 2000. 2500. 3000. 3500. 4000. 4500.
JIEXI/DELER VS. EPSLON


0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000.
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000.
JIETJ/DELET VS. EPST



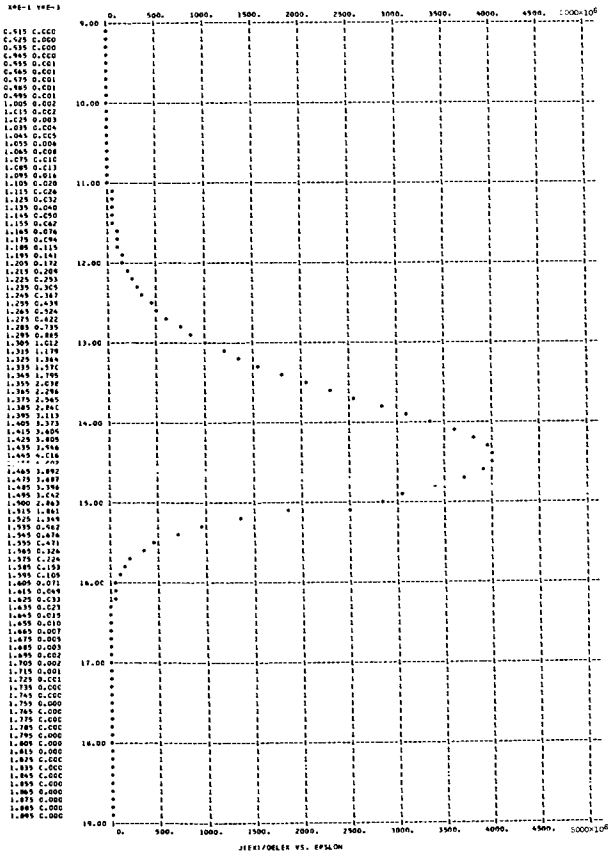


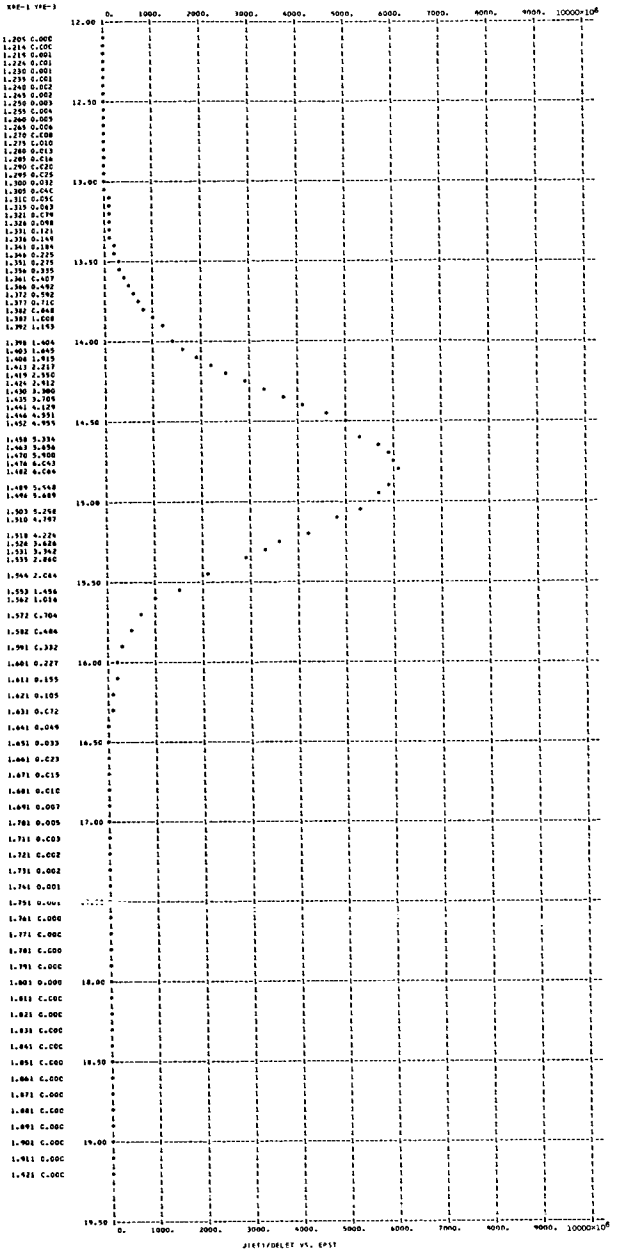
T = 0.30000000E 04 E = C.10000002E 09 PHI = 2.00 AMU = 15.00 EVMAX = 15.0053

NEM = 0.26404823E 24 NEE = 0.19754826E 21 VXAV = 0.22318097E 09 KEXAV = 0.14171930E 02 KEXFL = 0.31677692E 10

J = 0.7063C6E 10 KETAV= 0.147565E 02 KETFL= 0.329644E 10 TZERO = 0.114162E 06 TD = 0.460799E 04

Figure 3. - Continued.


X0E-1 Y0E-3
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000×10⁶
9.00
10.00
11.00
12.00
13.00
14.00
15.00
16.00
17.00
18.00
19.00
JEEX1/DELER VS. EPSLON


X0E-1 Y0E-3
0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000×10⁶
12.00
12.50
13.00
13.50
14.00
14.50
15.00
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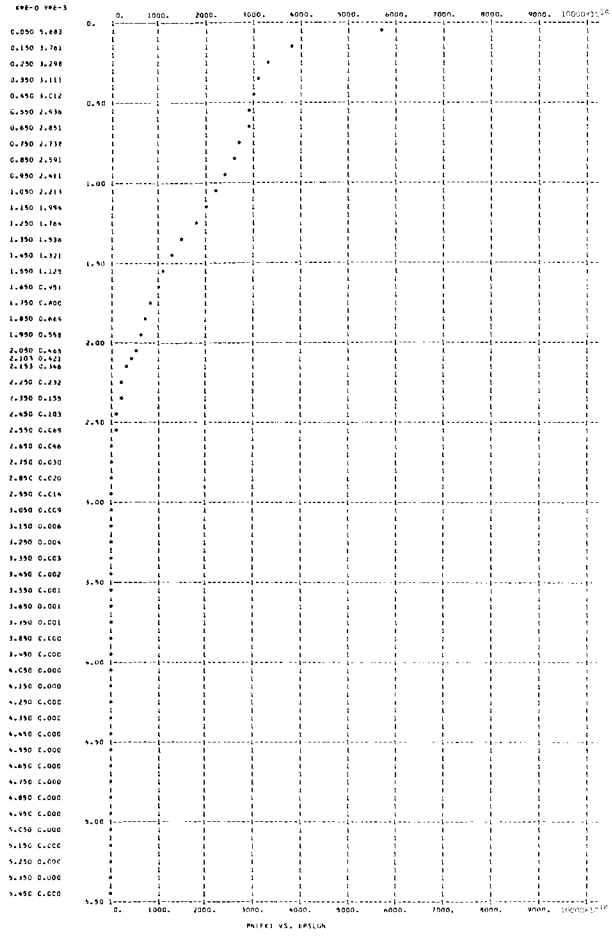
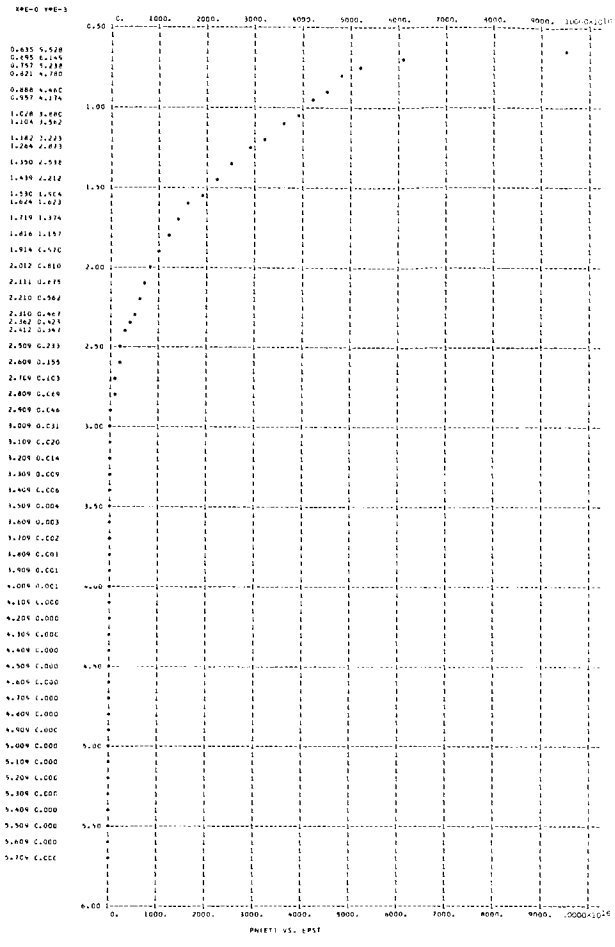
19.00
19.50
JEEY1/DELEY VS. EPSY



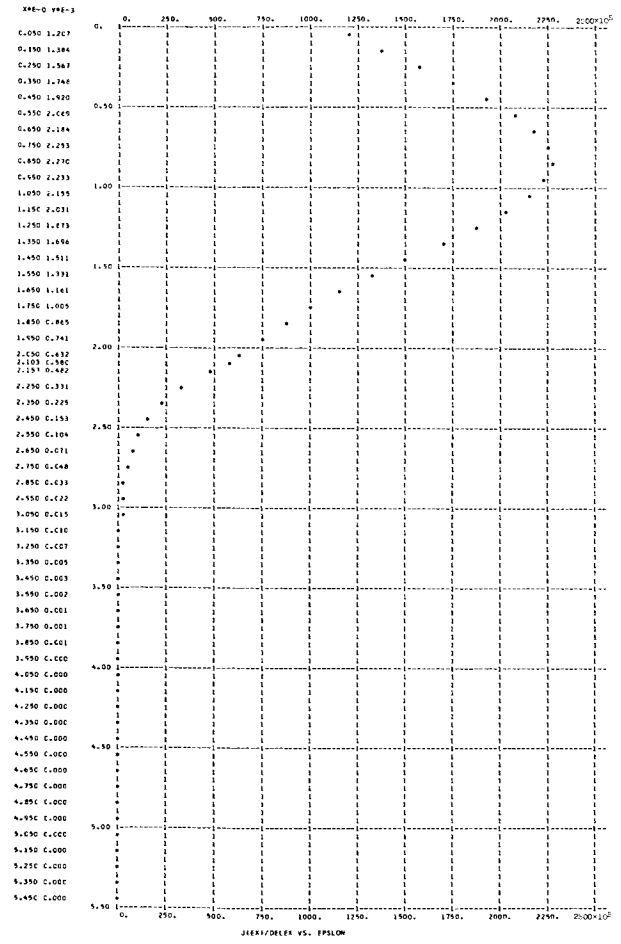


T = 0.30C00000E 04 E = C.10000002E 09 PHI = 4.00 AMU = 1.00 EVMAX = 2.1054

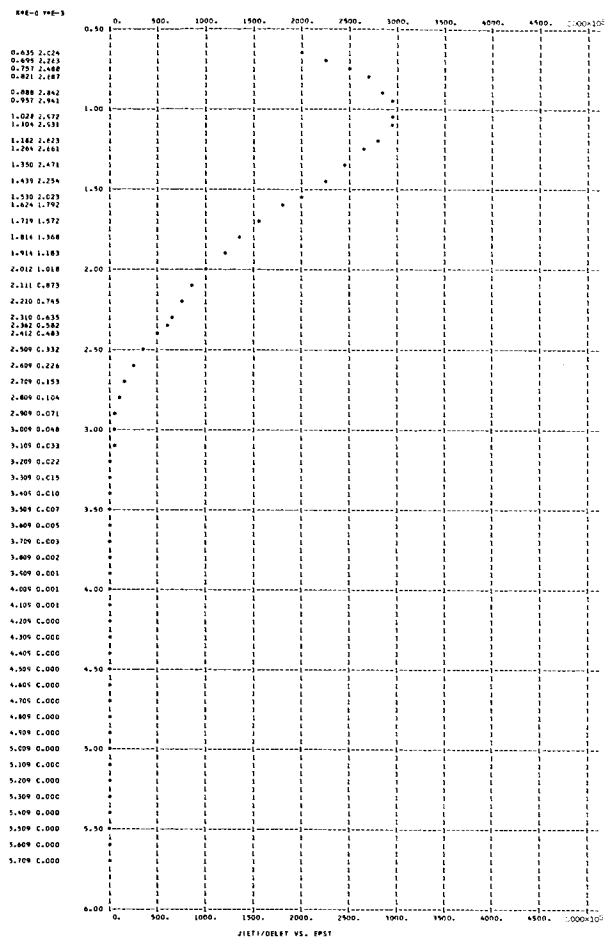
NEM = 0.49C14201E 22 NEE = 0.49281192E 20 VXAV = 0.45472952E 08 KEXAV = 0.72104071E 00 KEXFL = 0.45047013E 08

J = 0.359002E 09 KETAV= 0.112885E 01 KETFL= 0.611107E 08 TZERO = 0.873325E 04 TD = 0.418523E 04

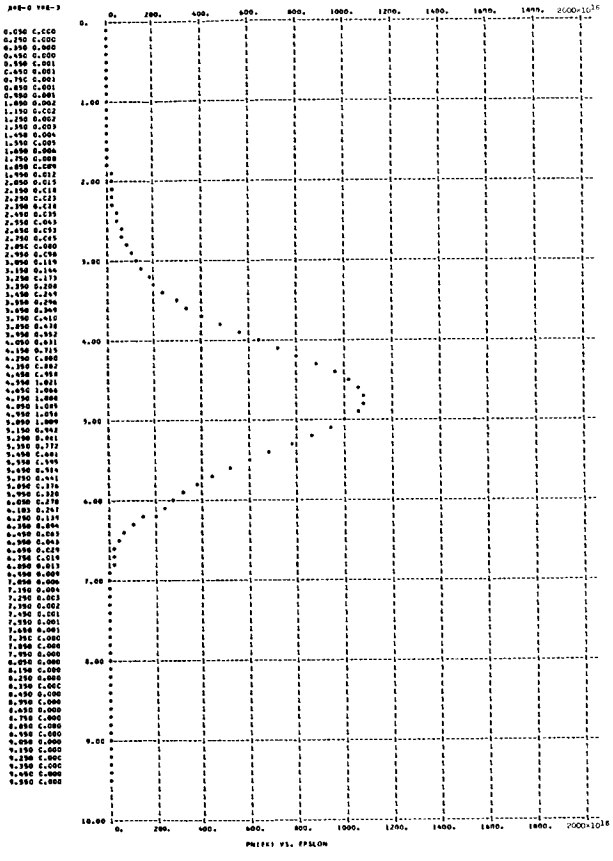
Figure 3. - Continued.

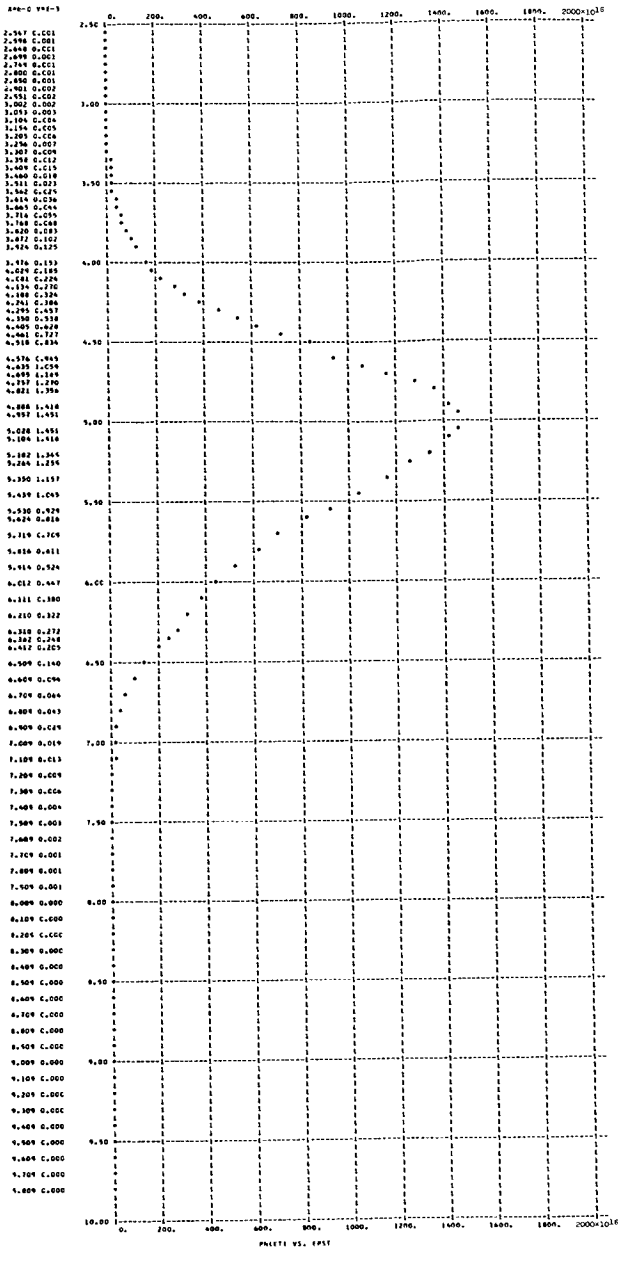


JIEXI/DELEX VS. EPSLON



JIETI/DELET VS. EPST



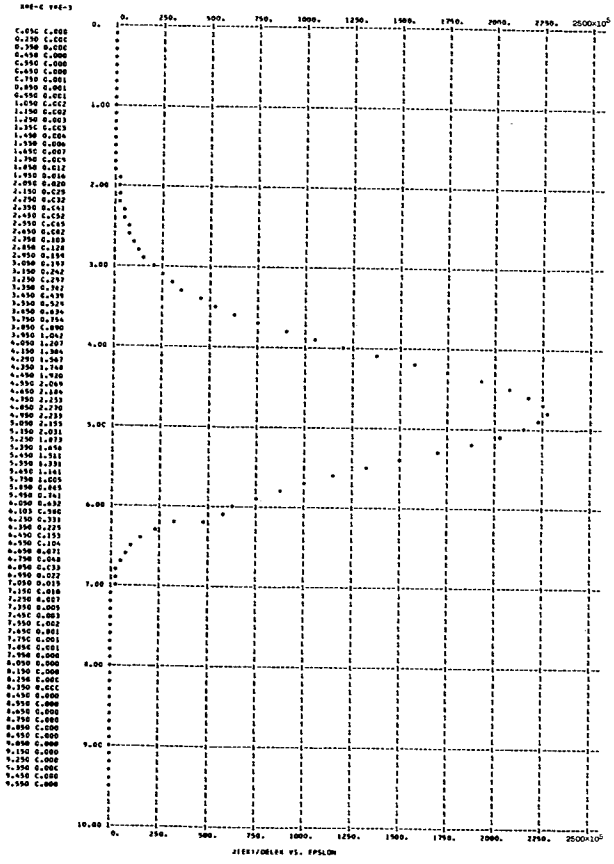


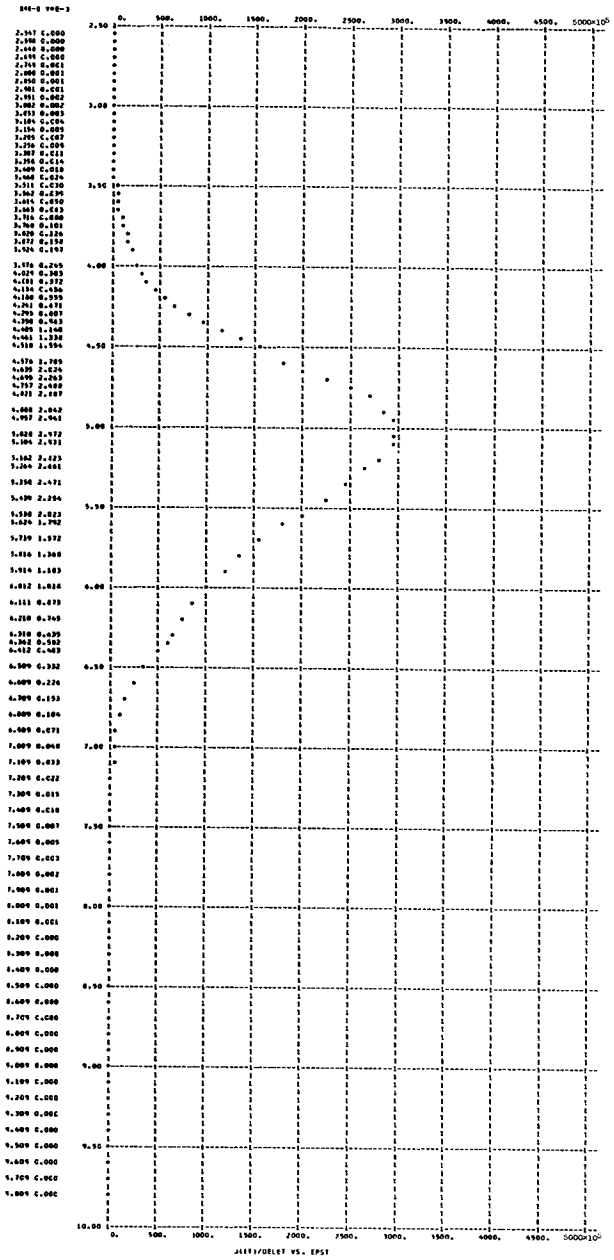
T = 0.30000000E 04 E = C.1C000002E 09 PHI = 4.00 AMU = 5.00 EVMAX = 6.1054

NEM = 0.50929834E 23 NEE = 0.20210999E 20 VXAV = 0.12823260E 09 KEXAV = 0.47117428E 01 KEXFL = 0.61328863E 09

J = 0.415152E 09 KETAV= 0.5150596E 01 KETFL= 0.6671636E 09 TZERO = 0.398471E 05 TD = 0.3688004E 04

Figure 3. - Continued.


0.
250.
500.
750.
1000.
1250.
1500.
1750.
2000.
2250.
2500×10⁵
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
JEET/DELET VS. EPSLON


0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000×10⁵
2.50
3.00
3.50
4.00
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5.00
5.50
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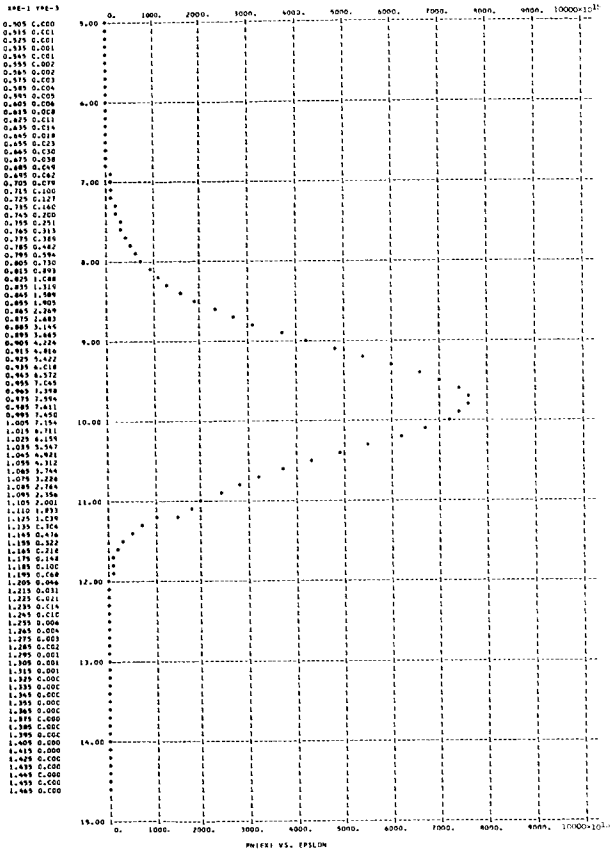
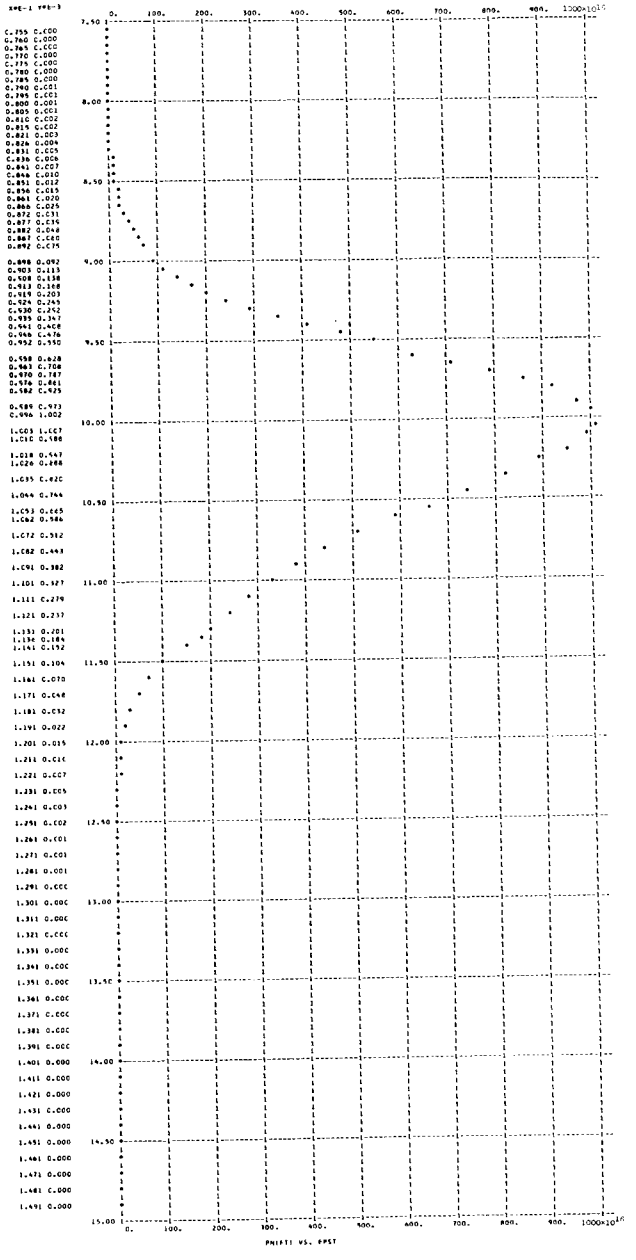
9.50
10.00
JEET/DELET VS. EPST



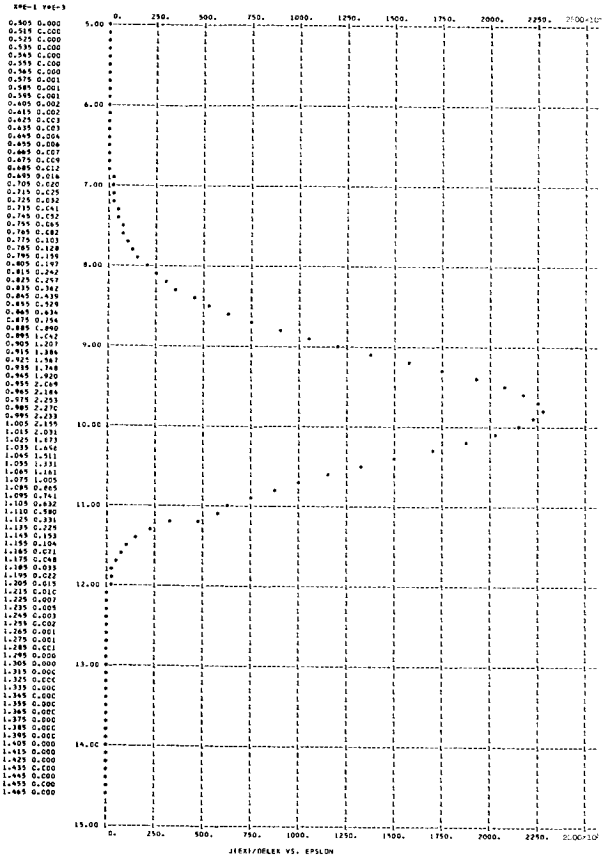


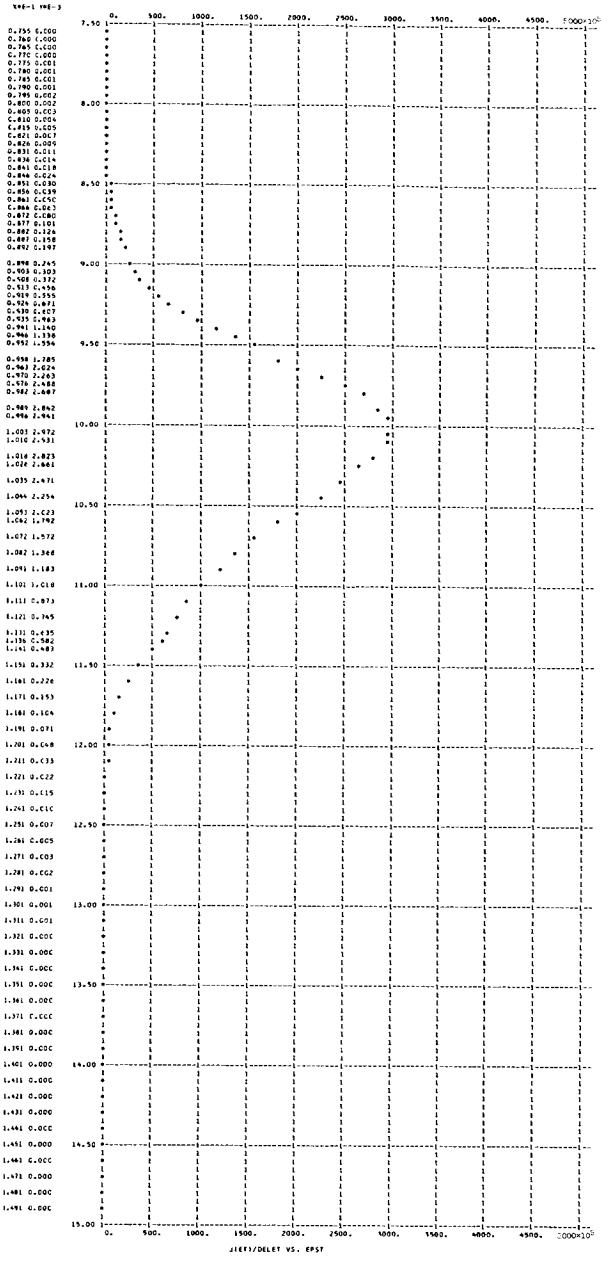
T = 0.30000000E 04 E = 0.10000002E 09 PHI = 4.00 AMU = 10.00 EVMAX = 11.1054

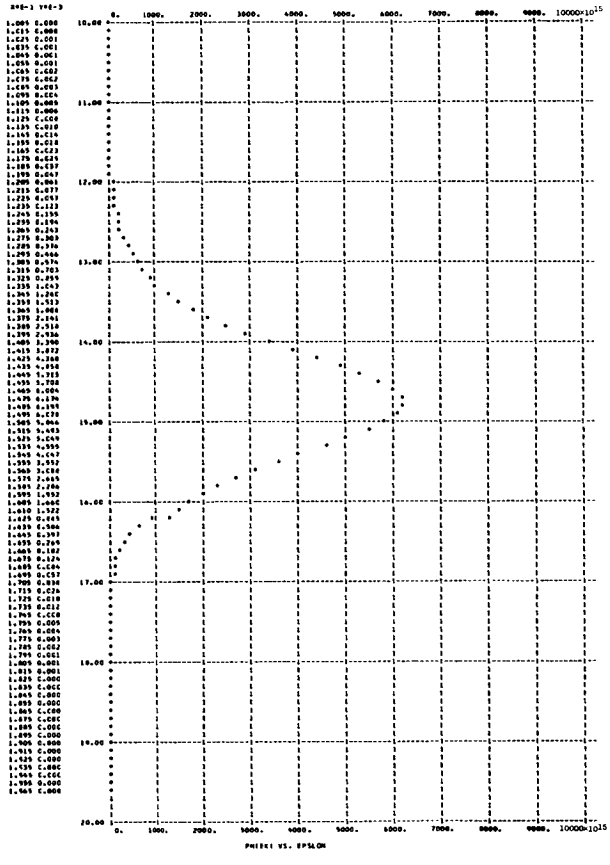
NEM = 0.14377540E 24 NEE = 0.14006174E 20 VXAV = 0.18503939E 09 KEXAV = 0.97505191E 01 KEXFL = 0.18101671E 10

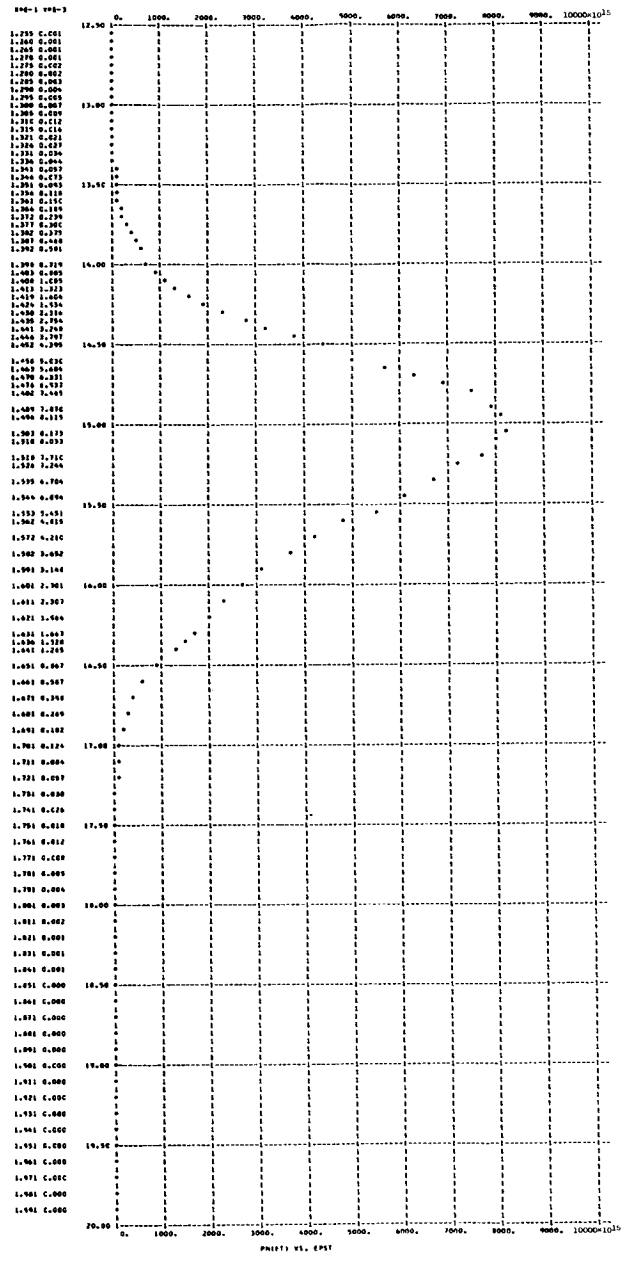
J = 0.415189E 09 KETAV= 0.101786E 02 KETFL= 0.188791E 10 TZERO = 0.787461E 05 TD = 0.343758E 04

Figure 3. - Continued.


JIEXI/DELEX VS. EPSLON


JIEYI/DELEY VS. EPSY



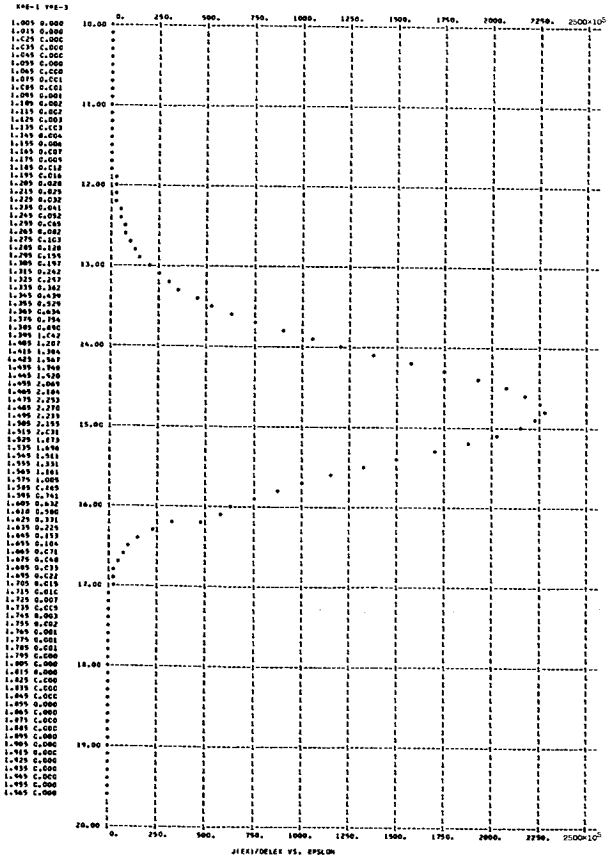


T = 0.30000000E 04 E = 0.10000002E 09 PHI = 4.00 AMU = 15.00 EVMAX = 16.1054

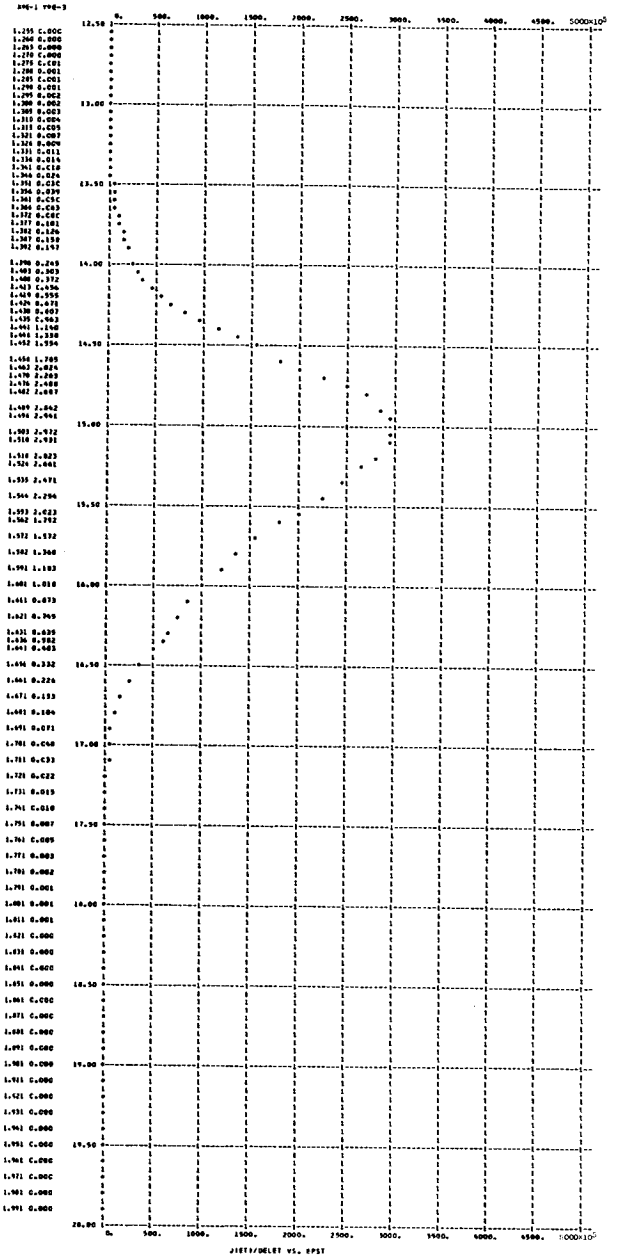
NEM = 0.26404823E 24 NEE = 0.11377784E 20 VXAV = 0.22778460E 09 KEXAV = 0.14761668E 02 KEXFL = 0.33672500E 10

J = 0.415188E 09 KETAV= 0.151869E 02 KETFL= 0.346295E 10 TZERO = 0.1174492E 06 TD = 0.337153E 04

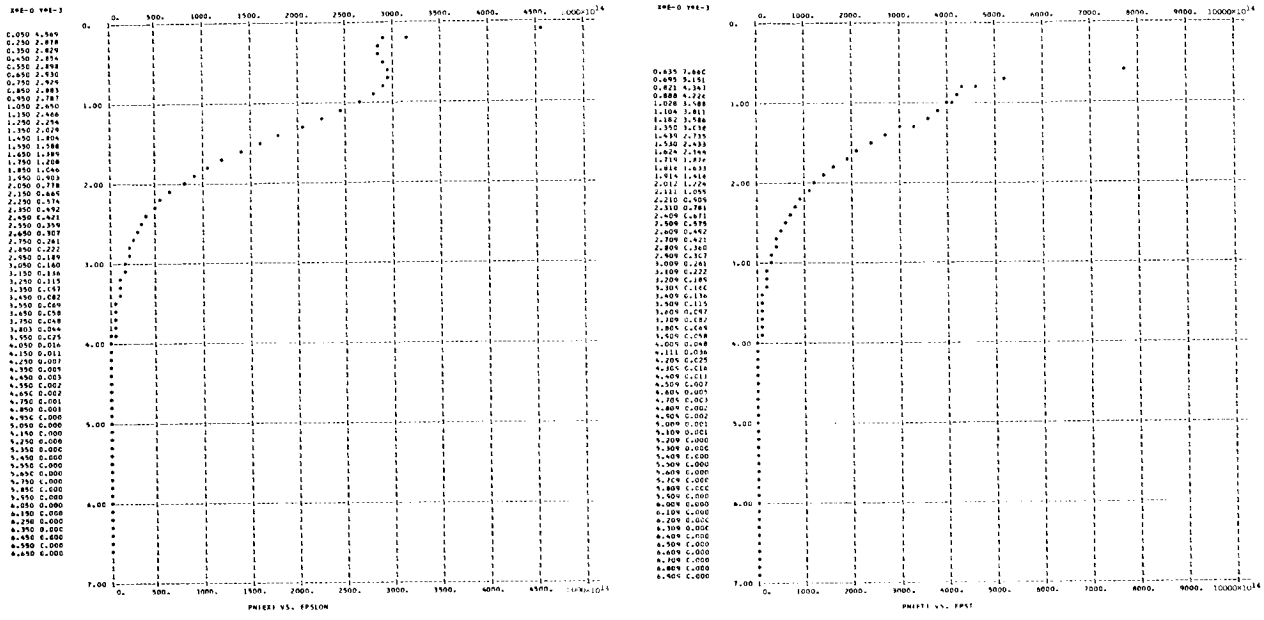
Figure 3. - Continued.



JIEXI/DELEX VS. EPSLON



JIETJ/DELET VS. EPST

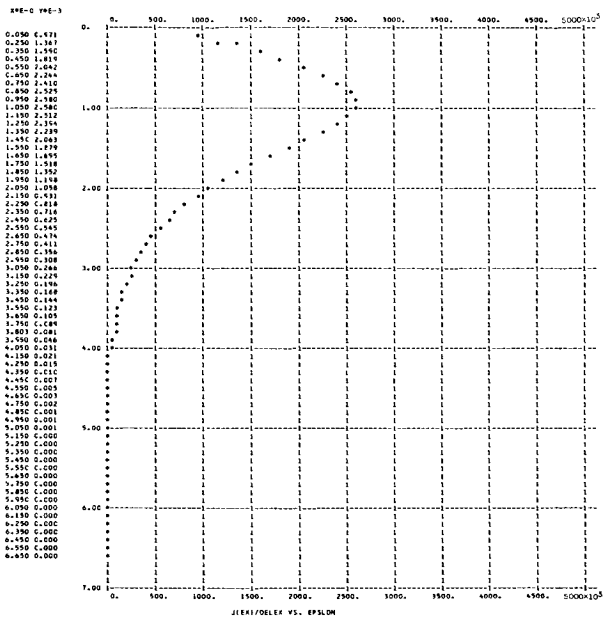


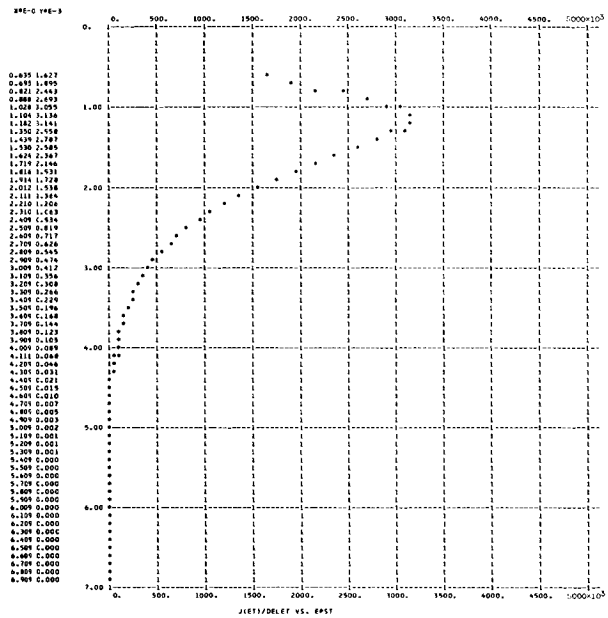
T = 0.3C000000E 04 E = 0.10000002E 09 PHI = 6.00 AMU = 1.00 EVMAX = 3.8054

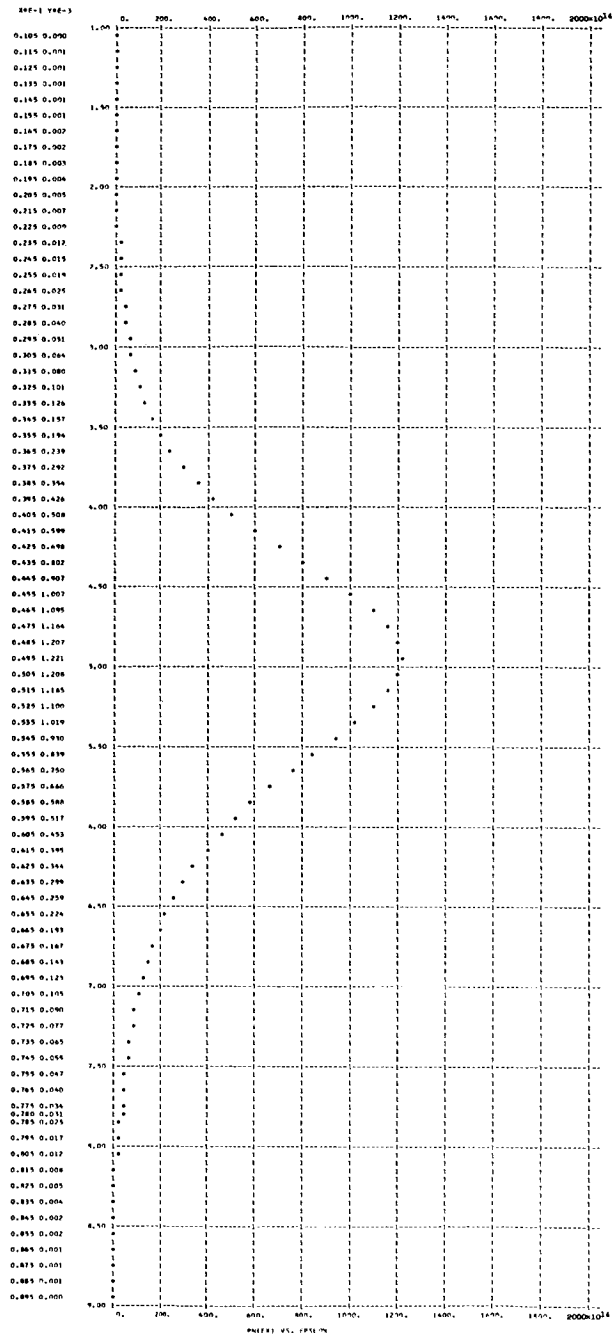
NEM = 0.49014194E 22 NEE = 0.55162629E 18 VXAV = 0.52456728E 08 KEXAV = 0.94414840E 00 KEXFL = 0.66696224E 08

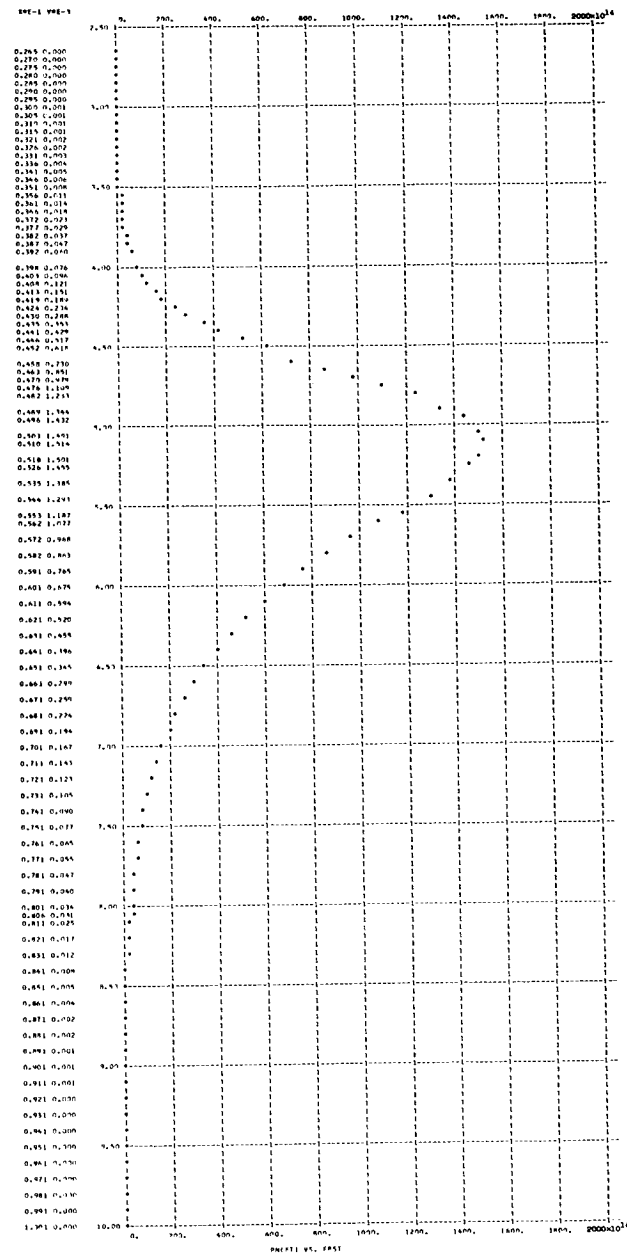
J = 0.463563E 07 KETAV= 0.132234E 01 KETFL= 0.839358E 08 TZERO = 0.102302E 05 TD = 0.417790E 04

Figure 3. - Continued.


J(EK)/DELEK VS. EPSLON


J(ET)/DELET VS. EPST



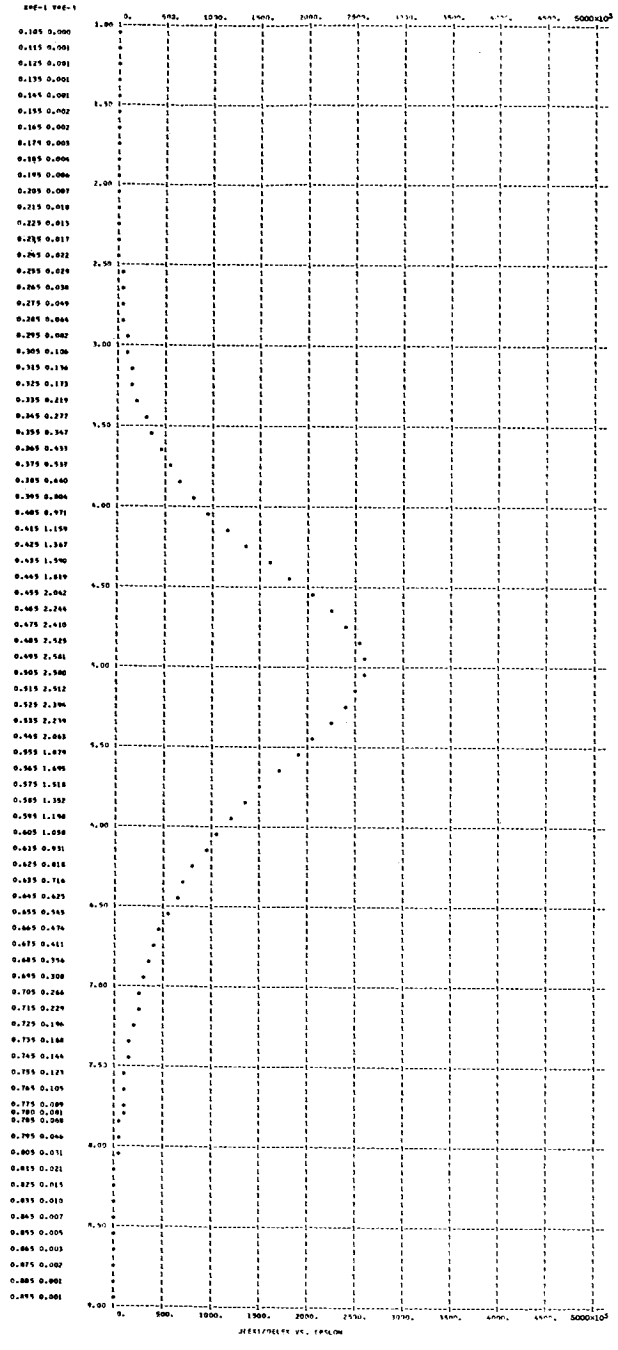


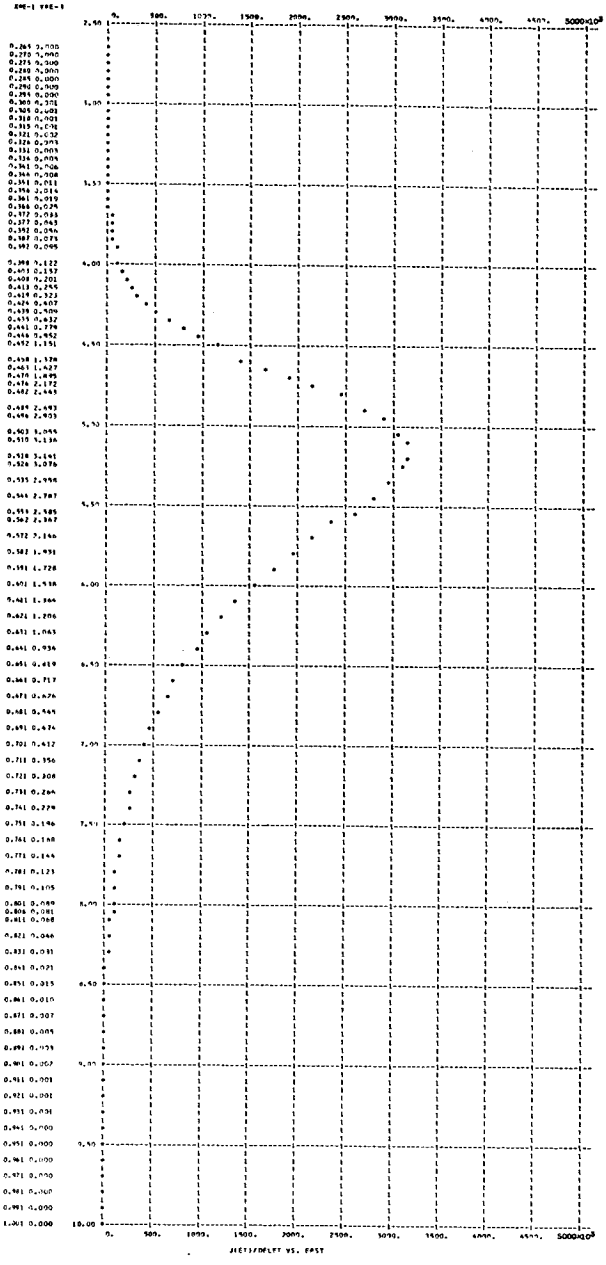
T = 0.30000000E 04 E = 0.10000002E 09 PHI = 6.00 AMU = 5.00 EVMAX = 7.8054

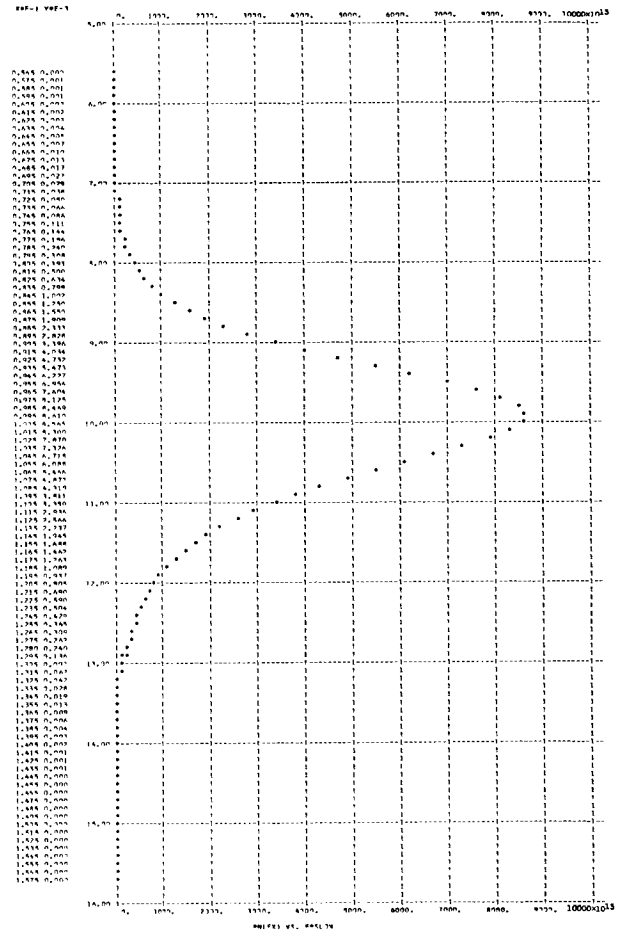
NEM = 0.50929833E 23 NEE = 0.23449575E 18 VXAV = 0.13298669E 09 KEXAV = 0.50671252E 01 KEXFL = 0.68420619E 09

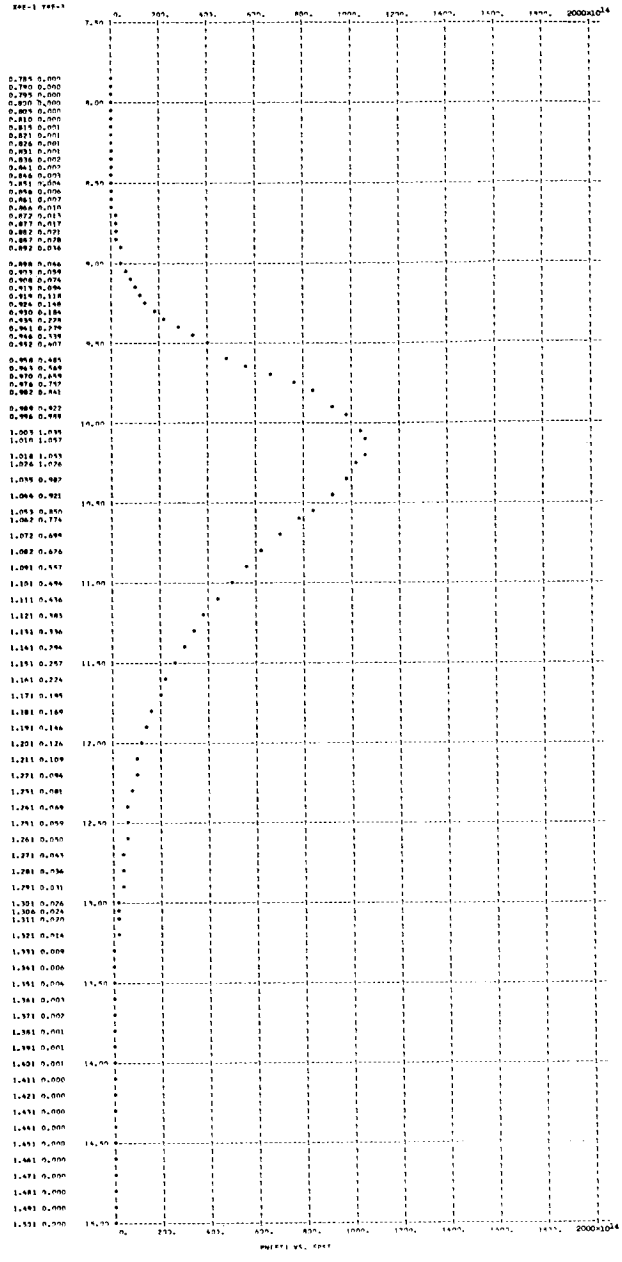
J = 0.499581E 07 KETAV= 0.544407E 01 KETFL= 0.732602E 09 TZERO = 0.421175E 05 TD = 0.321907E 04

Figure 3. - Continued.







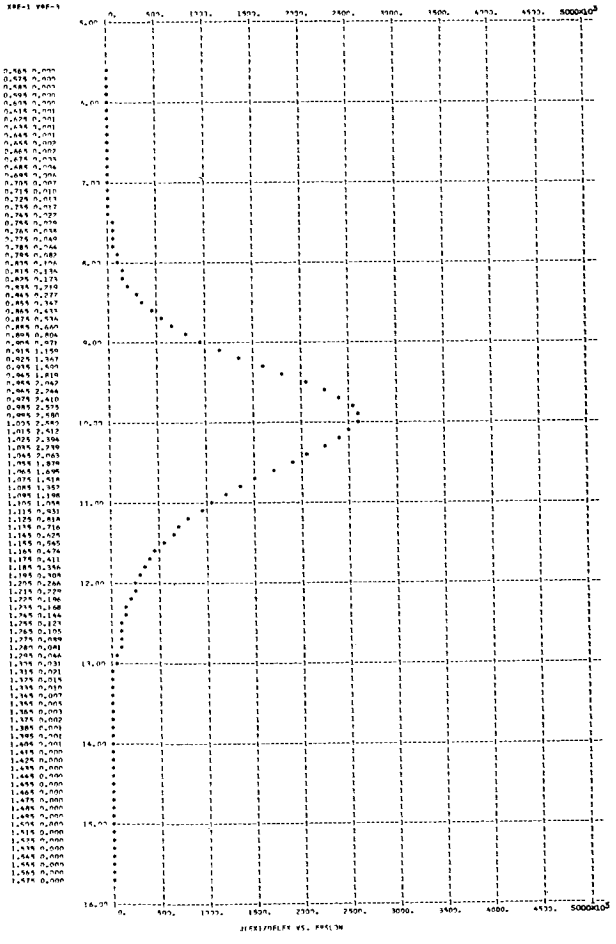


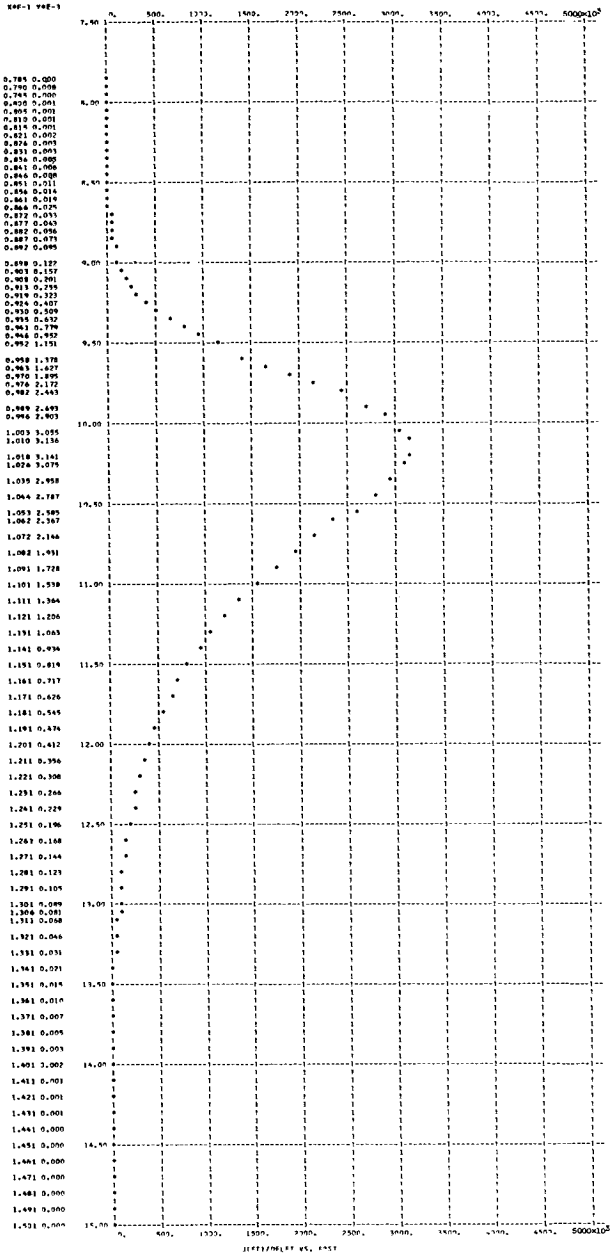
T = 0.30000000E 04 F = 0.10300302E 39 PHI = 6.00 AMU = 10.00 EVMAX = 12.8054

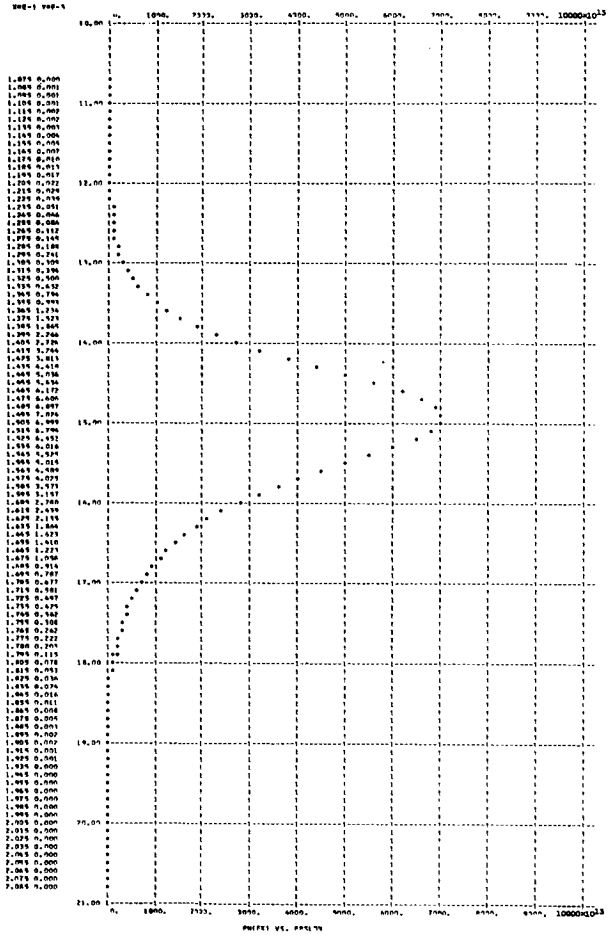
NEM = 0.14377540E 24 NEE = 0.16555370E 18 VXAV = 0.18836477E 09 KEXAV = 0.10106495E 02 KEXFL = 0.19109461E 10

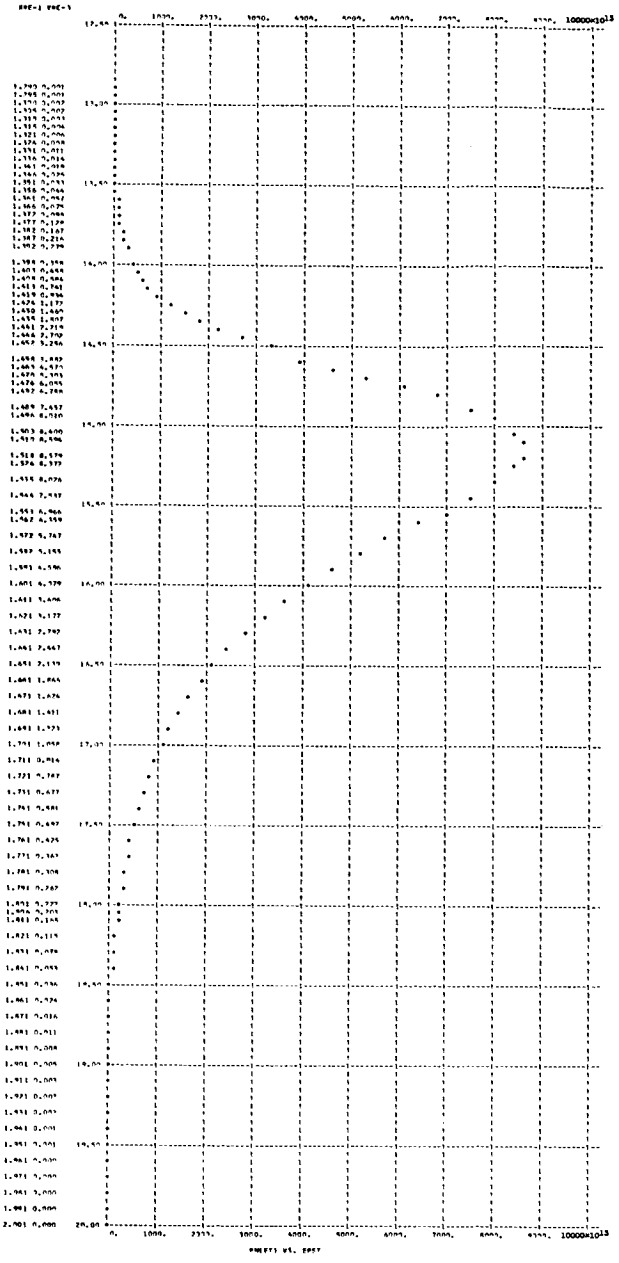
J = 0.499575E 07 KETAV= 0.104763E 02 KETFL= 0.197949E 10 TZERO = 0.810491E 05 TD = 0.303949E 04

Figure 3. - Continued.







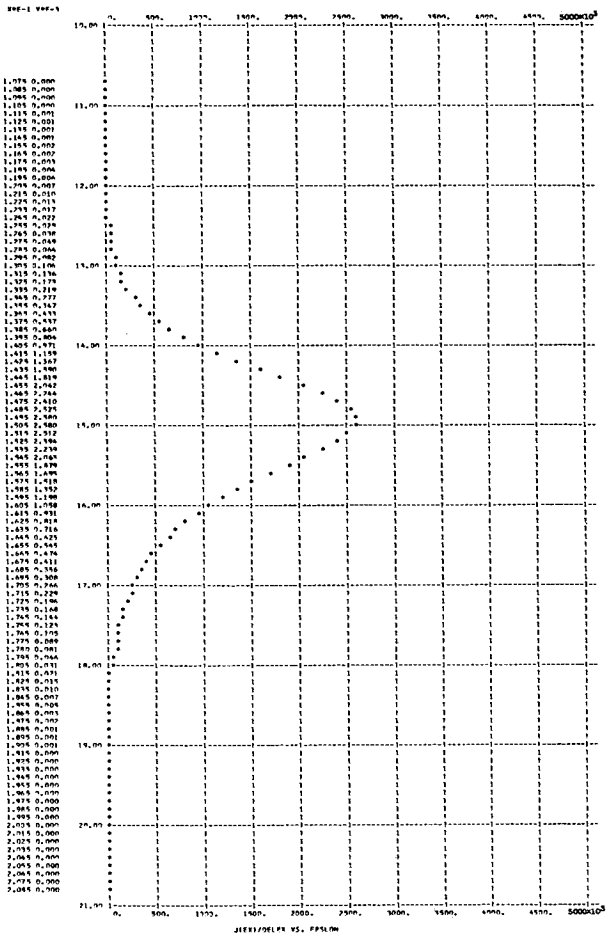


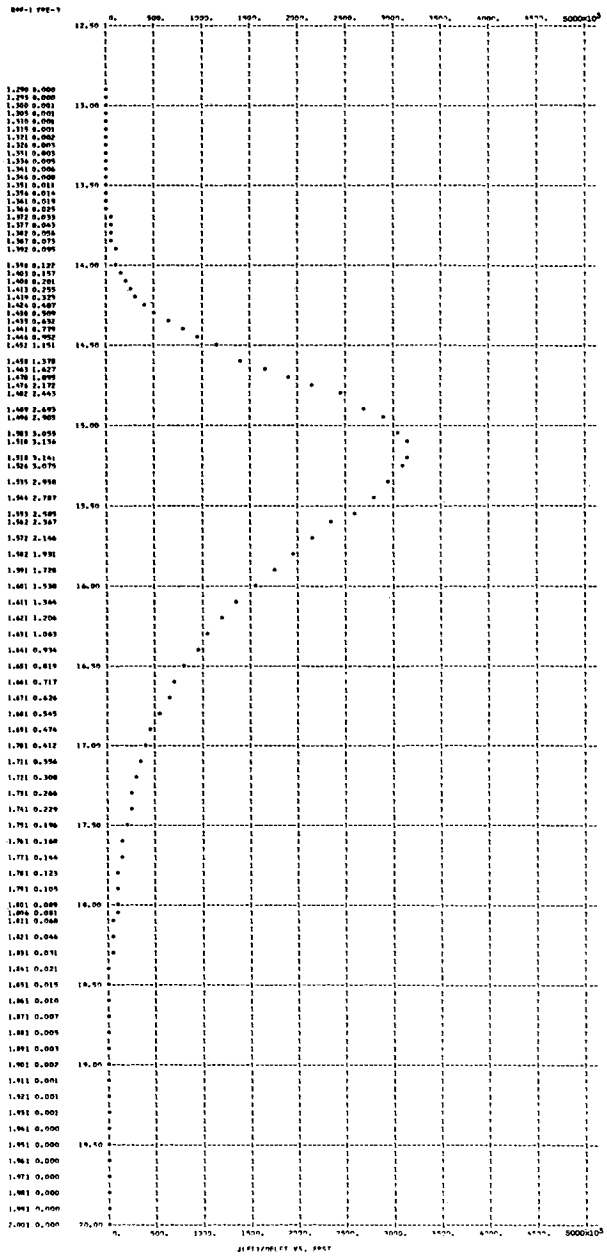
T = 0.30000000E 04 E = 0.10000002E 09 PHI = 6.00 AMU = 15.00 EVMAX = 17.8054

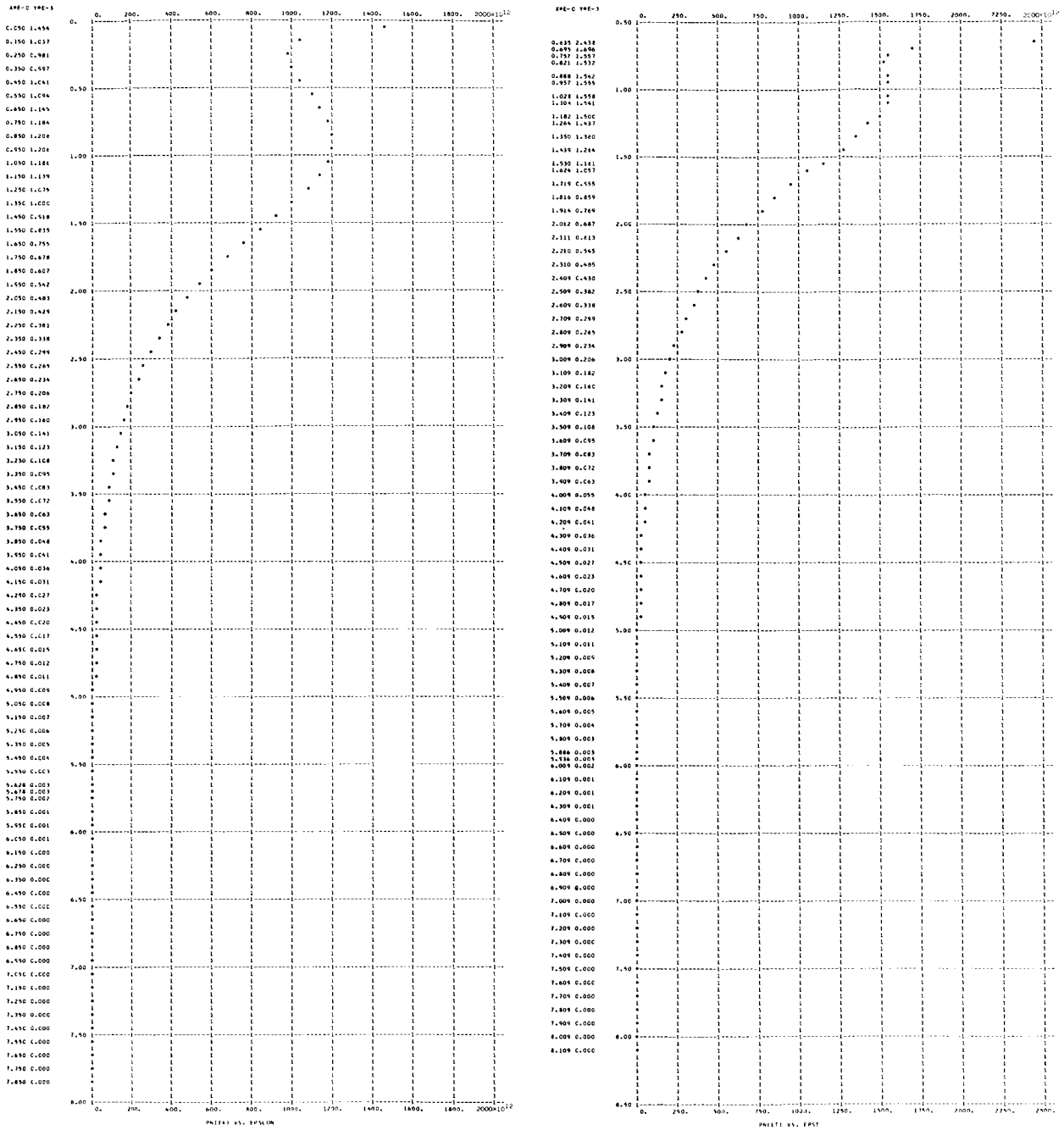
NEM = 0.26404823E 24 NFF = 0.13528339E 15 VXAV = 0.23051117E 09 KEXAV = 0.15119214E 02 KEXFL = 0.34910741E 10

J = 0.499573E 07 KETAV= 0.154870E 02 KETFL= 0.357496E 10 TZERO = 0.119814E 06 TJ = 0.294448E 04

Figure 3. - Continued.





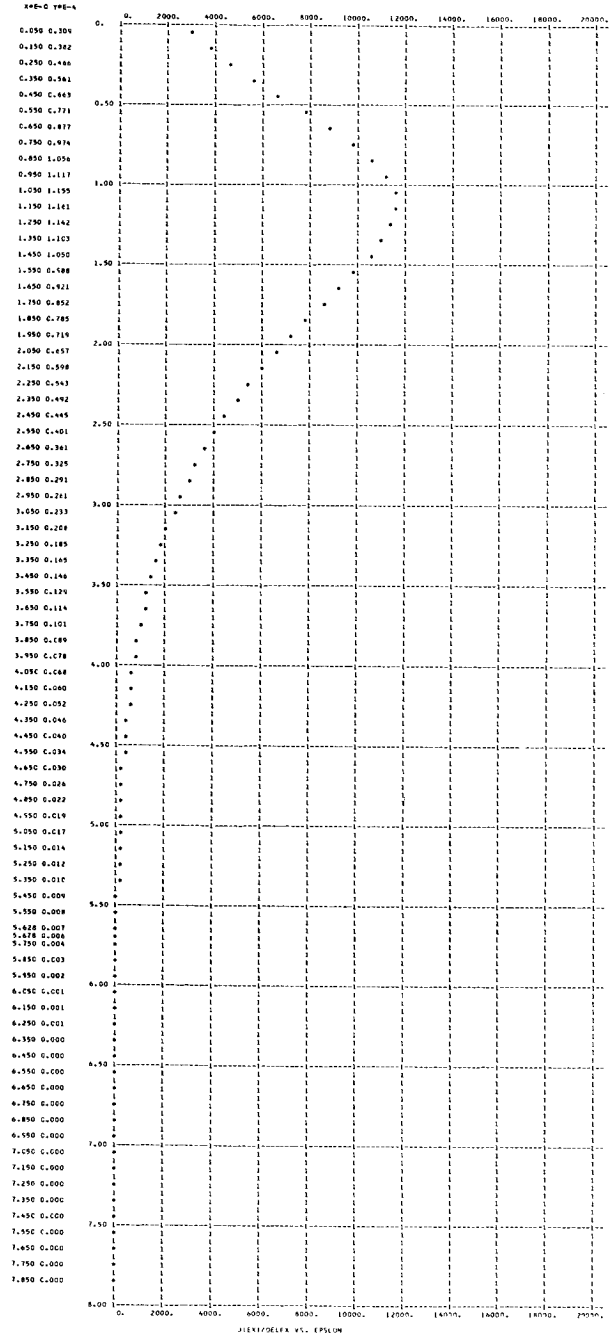


T = 0.300000C0E 04 E = 0.10000002E 09 PHI = 8.00 AMU = 1.00 EVMAX = 5.6554

NEM = 0.49014194E 22 NEE = 0.24756505E 16 VXAV = 0.59265951E 08 KEXAV = 0.11824537E 01 KEXFL = 0.92019756E 08

J = 0.235048E 05 KETAV= 0.153525E 01 KETFL= 0.110408E 09 TZERO = 0.118773E 05 TD = 0.415182E 04

Figure 3. - Continued.


X=E-0 Y=E-4
0.050 0.309
0.150 0.382
0.250 0.486
0.350 0.561
0.450 0.669
0.550 0.771
0.650 0.877
0.750 0.976
0.850 1.056
0.950 1.117
1.050 1.195
1.150 1.161
1.250 1.142
1.350 1.103
1.450 1.050
1.550 0.988
1.650 0.921
1.750 0.852
1.850 0.785
1.950 0.719
2.050 0.657
2.150 0.598
2.250 0.543
2.350 0.492
2.450 0.445
2.550 0.401
2.650 0.361
2.750 0.325
2.850 0.291
2.950 0.261
3.050 0.233
3.150 0.208
3.250 0.185
3.350 0.165
3.450 0.146
3.550 0.129
3.650 0.114
3.750 0.101
3.850 0.089
3.950 0.078
4.050 0.068
4.150 0.060
4.250 0.052
4.350 0.046
4.450 0.040
4.550 0.034
4.650 0.030
4.750 0.026
4.850 0.022
4.950 0.019
5.050 0.017
5.150 0.014
5.250 0.012
5.350 0.010
5.450 0.009
5.550 0.008
5.628 0.007
5.678 0.006
5.750 0.004
5.850 0.003
5.950 0.002
6.050 0.001
6.150 0.001
6.250 0.001
6.350 0.000
6.450 0.000
6.550 0.000
6.650 0.000
6.750 0.000
6.850 0.000
6.950 0.000
7.050 0.000
7.150 0.000
7.250 0.000
7.350 0.000
7.450 0.000
7.550 0.000
7.650 0.000
7.750 0.000
7.850 0.000
0.
2000.
4000.
6000.
8000.
10000.
12000.
14000.
16000.
18000.
20000.
0.50
1.00
1.50
2.00
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6.50
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7.50
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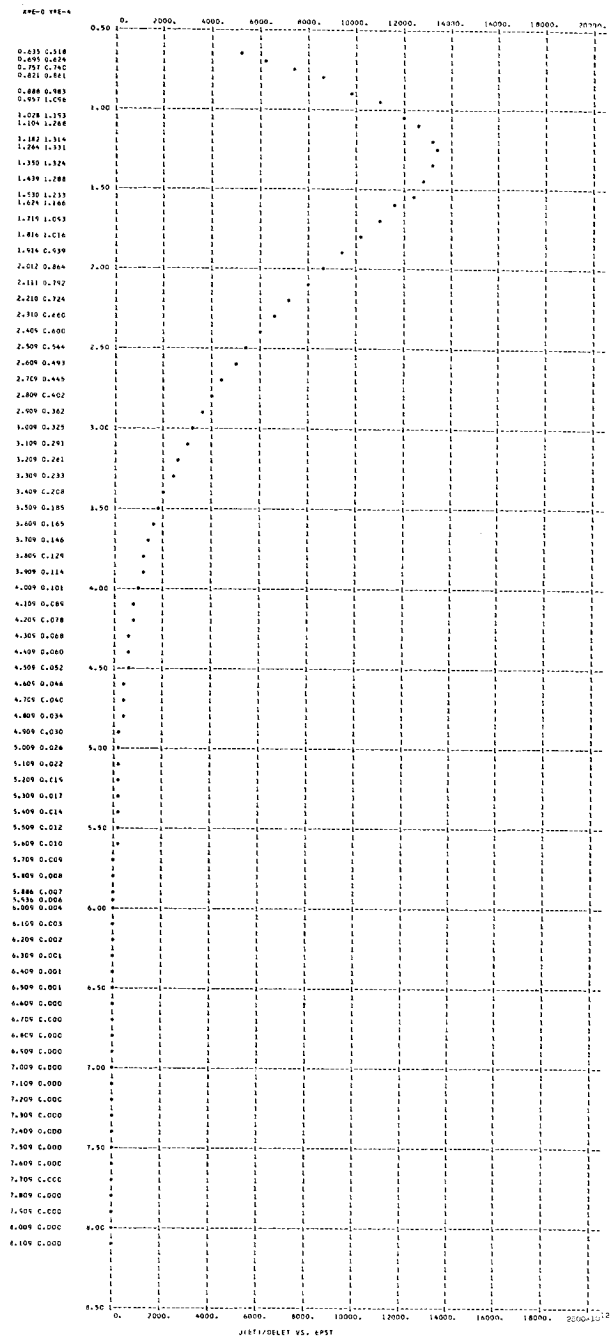
JIEXI/DELEX VS. EPSLON


X=E-0 Y=E-4
0.635 0.518
0.695 0.624
0.757 0.742
0.821 0.881
0.888 0.983
0.957 1.058
1.028 1.153
1.104 1.268
1.182 1.314
1.264 1.331
1.350 1.324
1.439 1.288
1.530 1.233
1.624 1.168
1.719 1.093
1.816 1.016
1.914 0.939
2.012 0.864
2.111 0.792
2.210 0.724
2.310 0.660
2.409 0.600
2.509 0.544
2.609 0.493
2.709 0.445
2.809 0.402
2.909 0.362
3.009 0.325
3.109 0.291
3.209 0.261
3.309 0.233
3.409 0.208
3.509 0.185
3.609 0.165
3.709 0.146
3.809 0.129
3.909 0.114
4.009 0.101
4.109 0.089
4.209 0.078
4.309 0.068
4.409 0.060
4.509 0.052
4.609 0.046
4.709 0.040
4.809 0.034
4.909 0.030
5.009 0.026
5.109 0.022
5.209 0.019
5.309 0.017
5.409 0.014
5.509 0.012
5.609 0.010
5.709 0.009
5.809 0.008
5.886 0.007
5.936 0.006
6.009 0.004
6.109 0.003
6.209 0.002
6.309 0.001
6.409 0.001
6.509 0.001
6.609 0.000
6.709 0.000
6.809 0.000
6.909 0.000
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7.209 0.000
7.309 0.000
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7.509 0.000
7.609 0.000
7.709 0.000
7.809 0.000
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8.009 0.000
8.109 0.000
0.
2000.
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8.00
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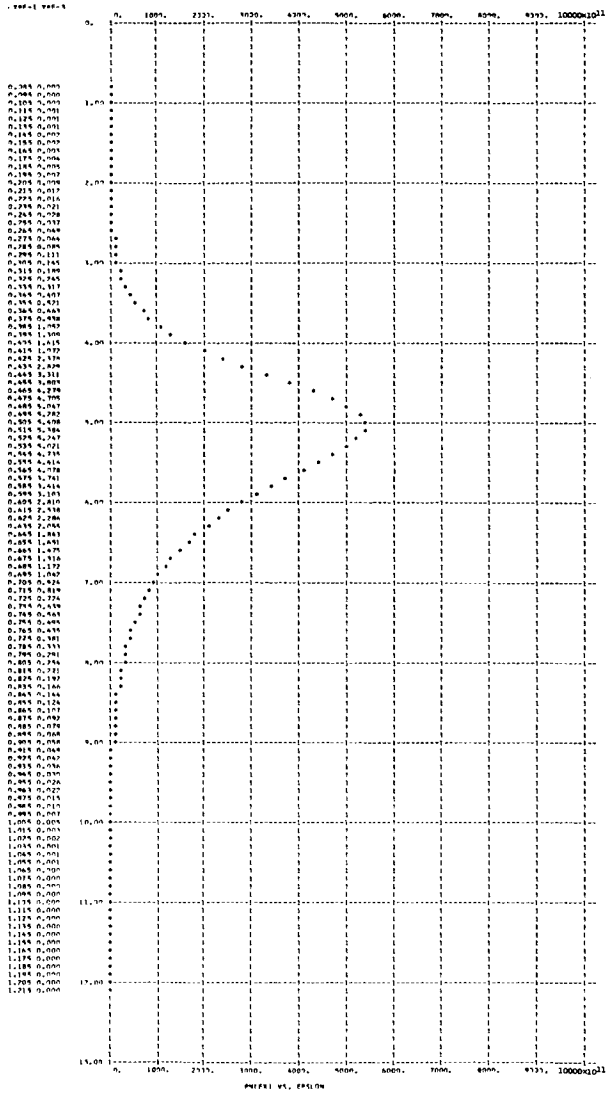
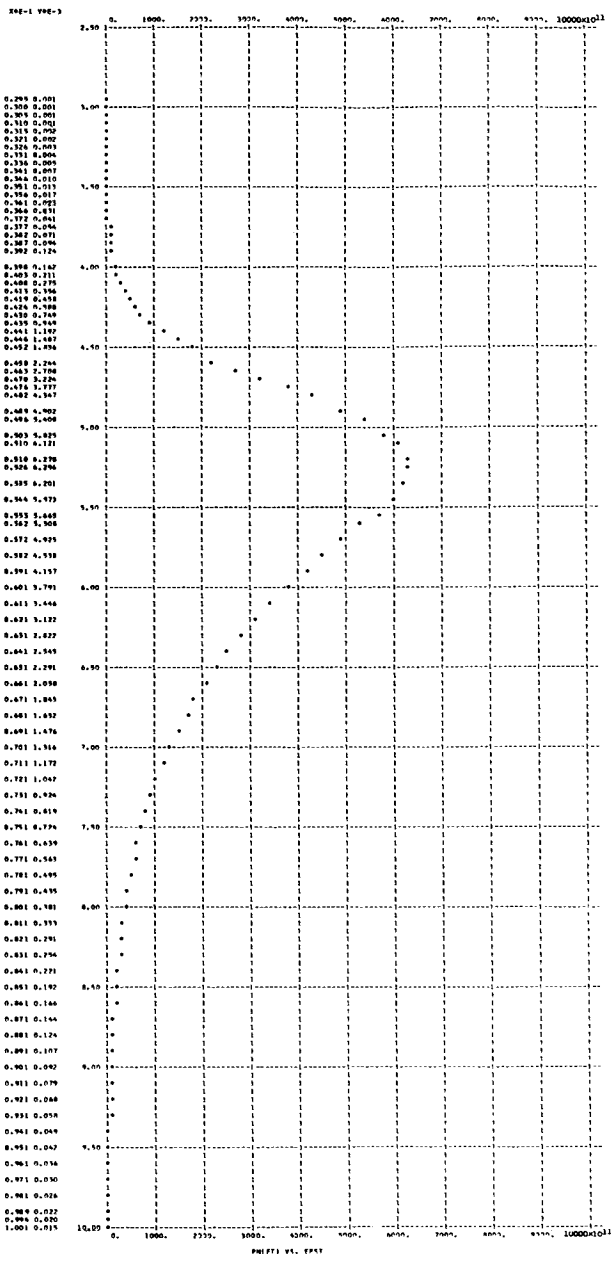
JIEPI/DELEP VS. EPST



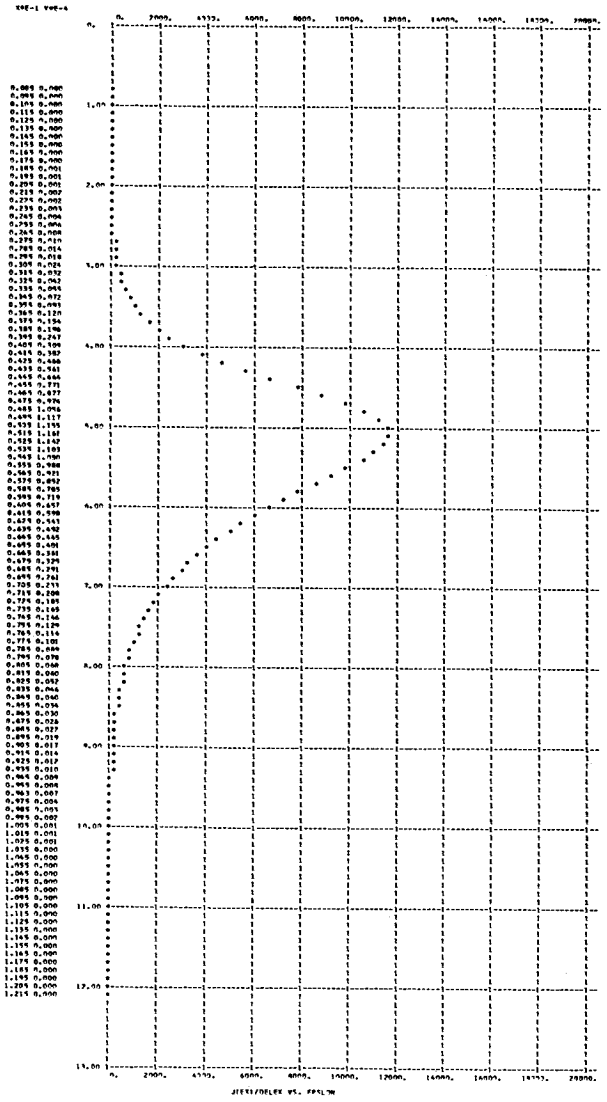


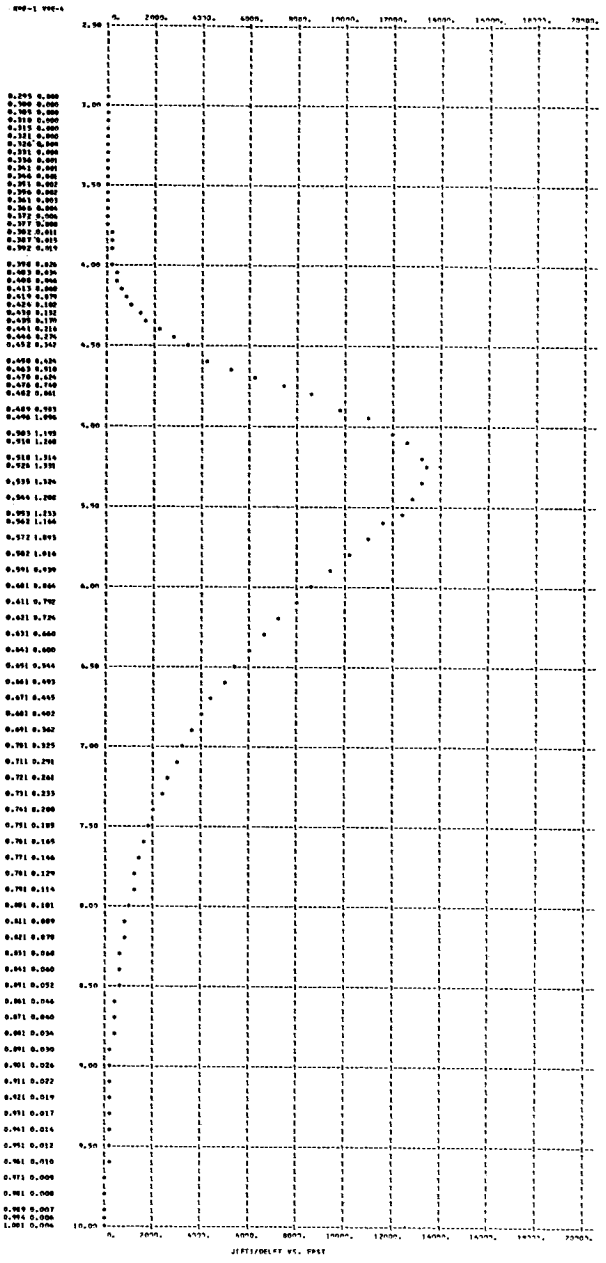
T = 0.30000000E 04 F = 0.10000002F 09 PHI = 8.00 ANU = 5.00 FVMAX = 9.6554

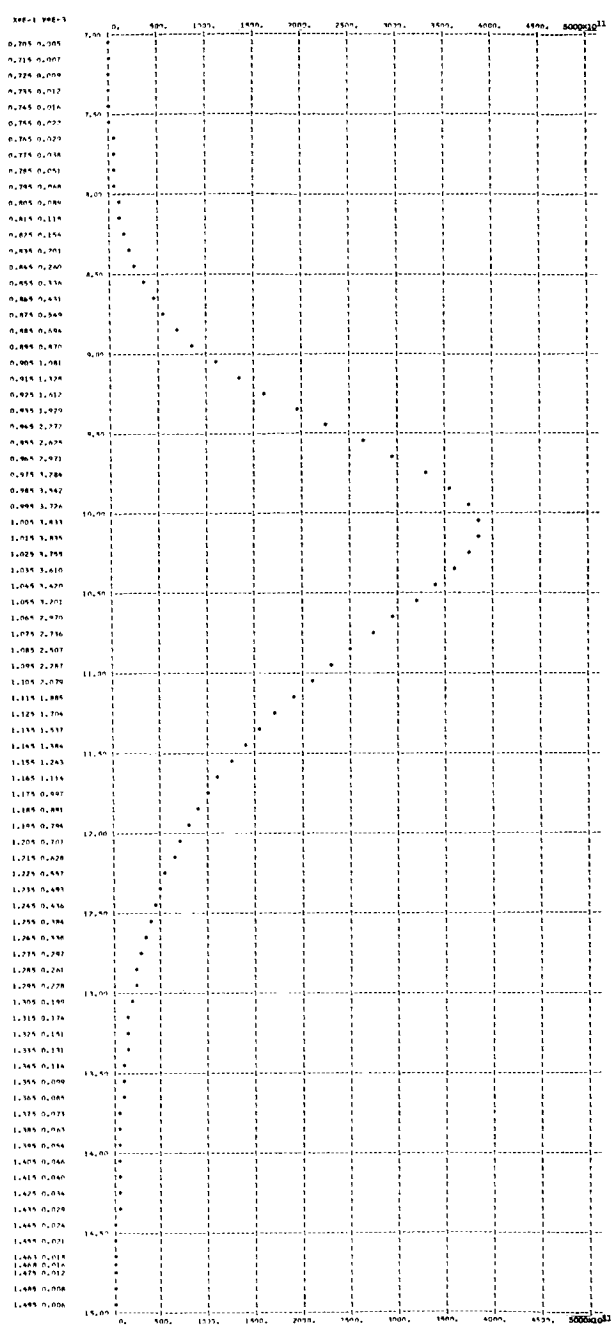
NEM = 0.50929833E 23 NEF = 0.11146234F 15 VXAV = 0.13703177E 09 KEXAV = 0.53832726E 01 KEXEL = 0.75111792E 09

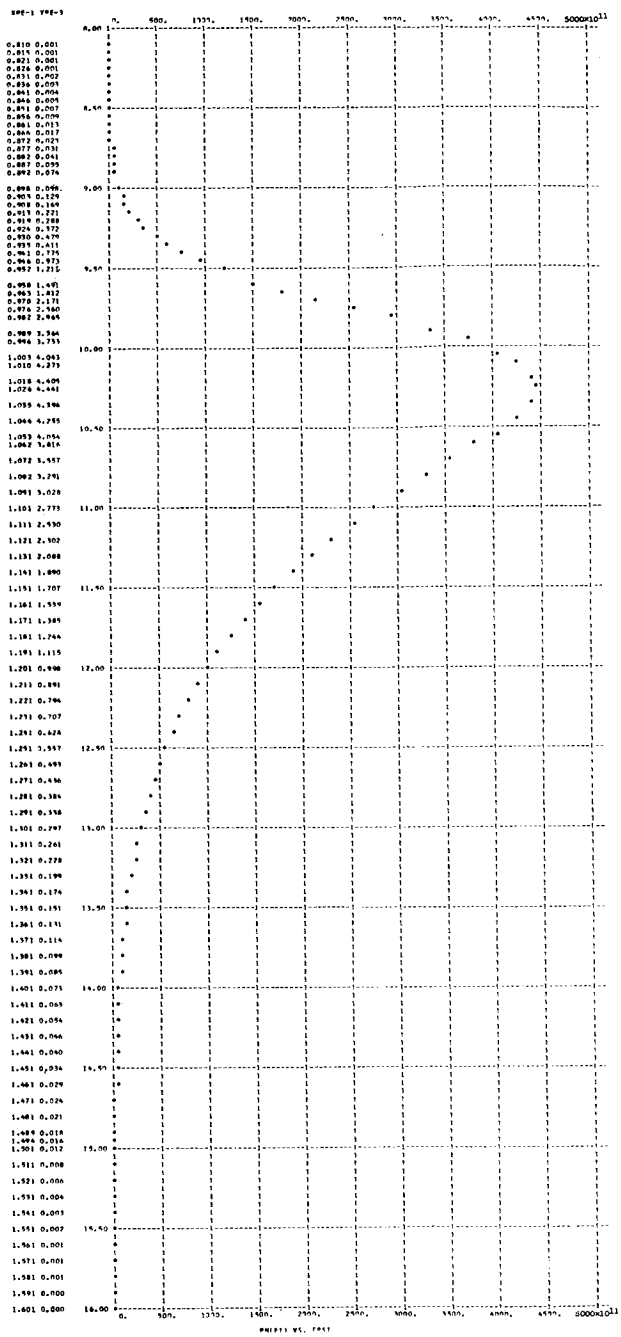
J = 0.244688F 05 KETAV= 0.572241E 01 KETEL= 0.795266E 09 TZERO = 0.442709E 05 TJ = 0.297010E 04

Figure 3. - Continued.







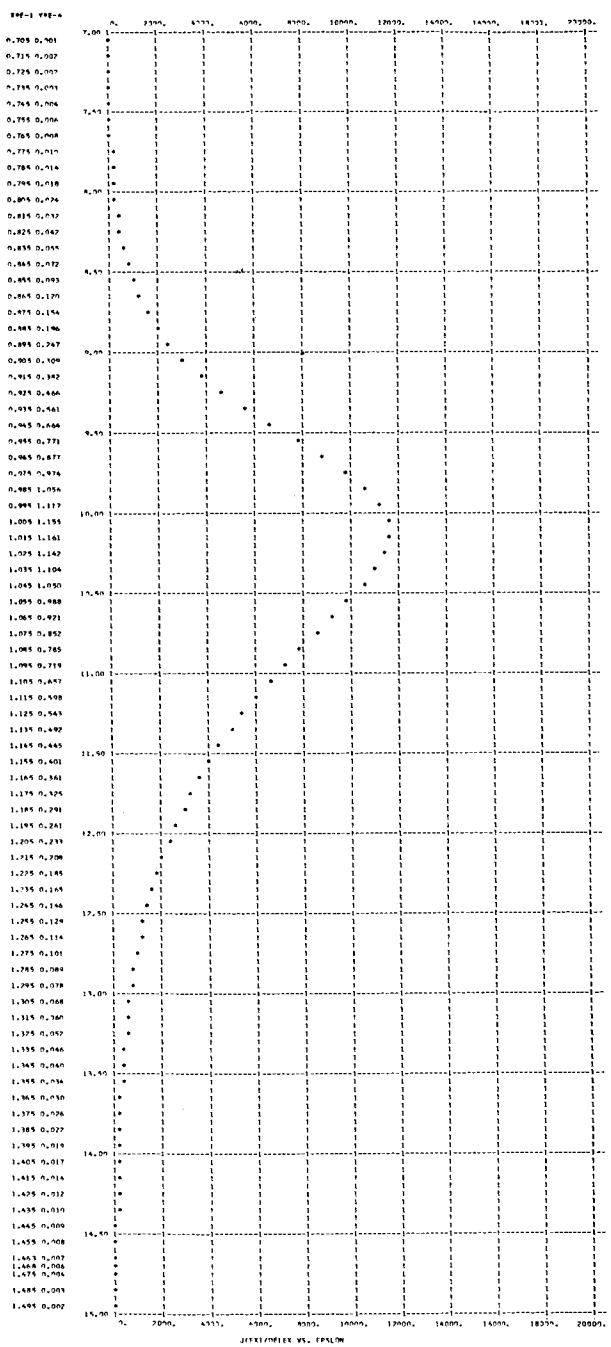


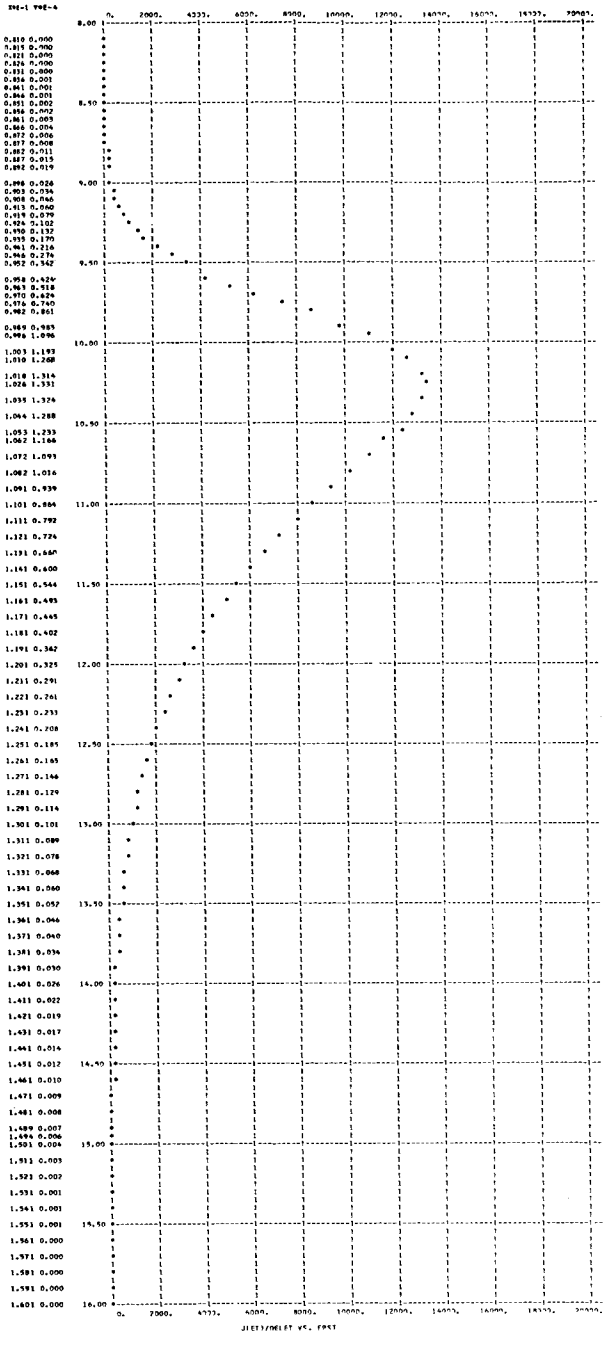
T = 0.30000000E 04 E = 0.10000002E 09 PHI = 8.00 AMU = 10.00 EVMAX = 14.6554

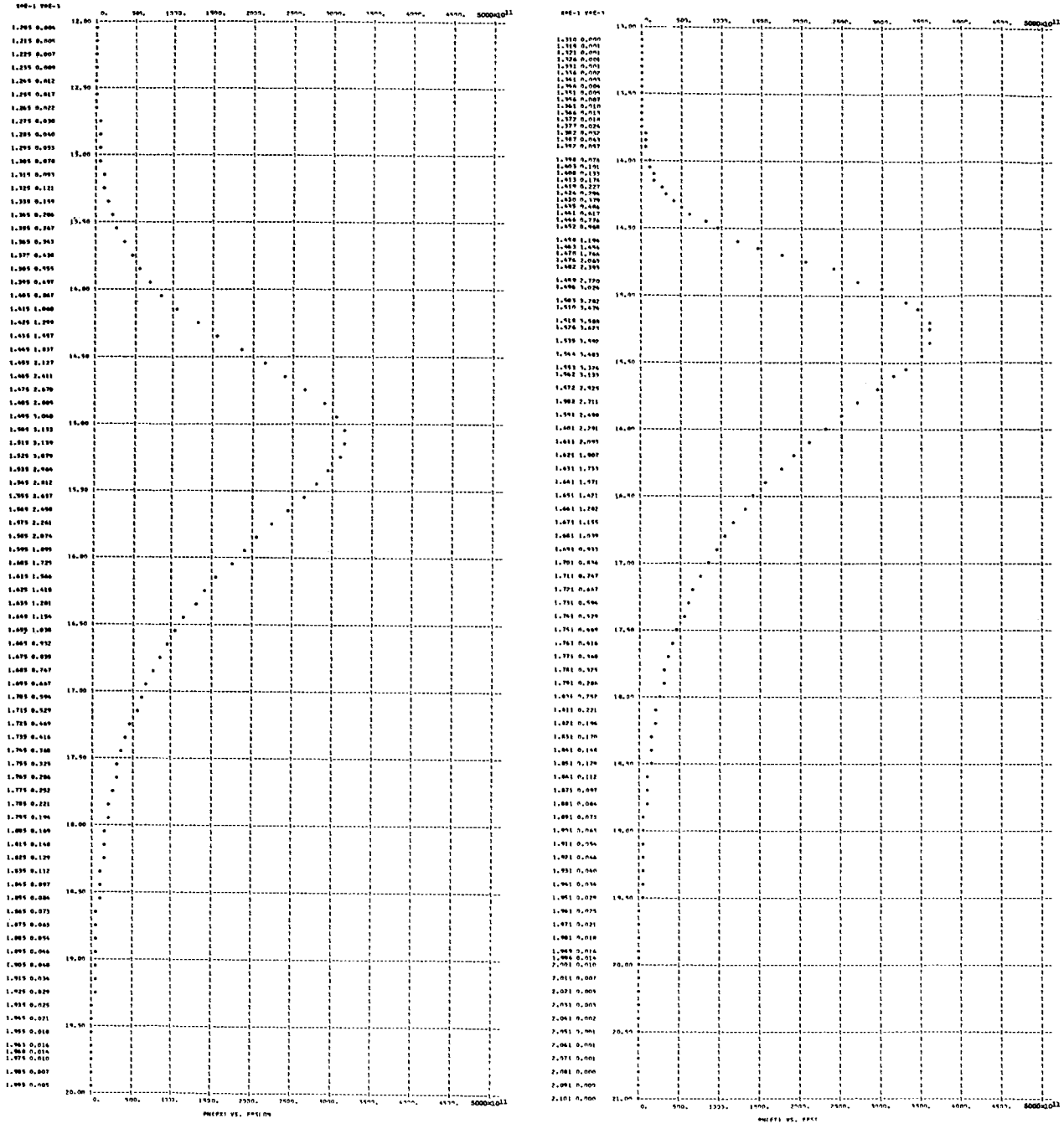
NEM = 0.14377540E 24 NEE = 0.79846147E 15 VXAV = 0.19129170E 09 KEXAV = 0.10426567E 02 KEXFL = 0.20035730E 10

J = 0.244687E 05 KETAV= 0.107506E 02 KETFL= 0.206661E 10 TZERO = 0.832487E 05 TO = 0.276581E 04

Figure 3. - Continued.


JET1/DELET VS. EPSLON


JET1/DELET VS. FRET

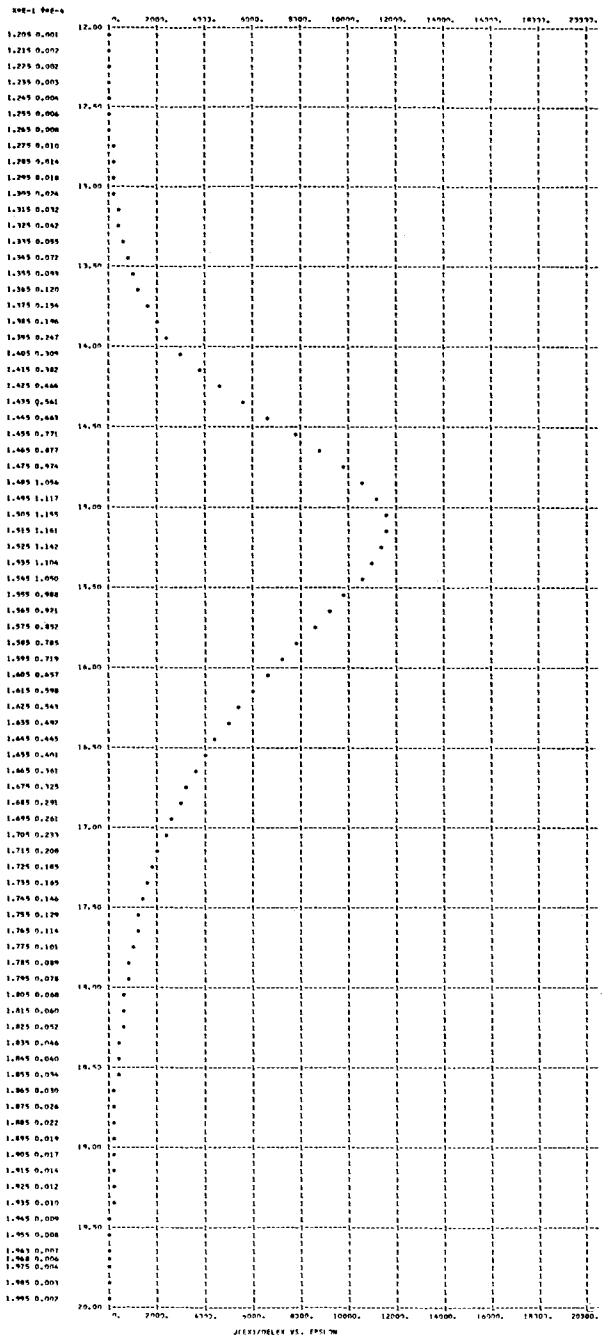


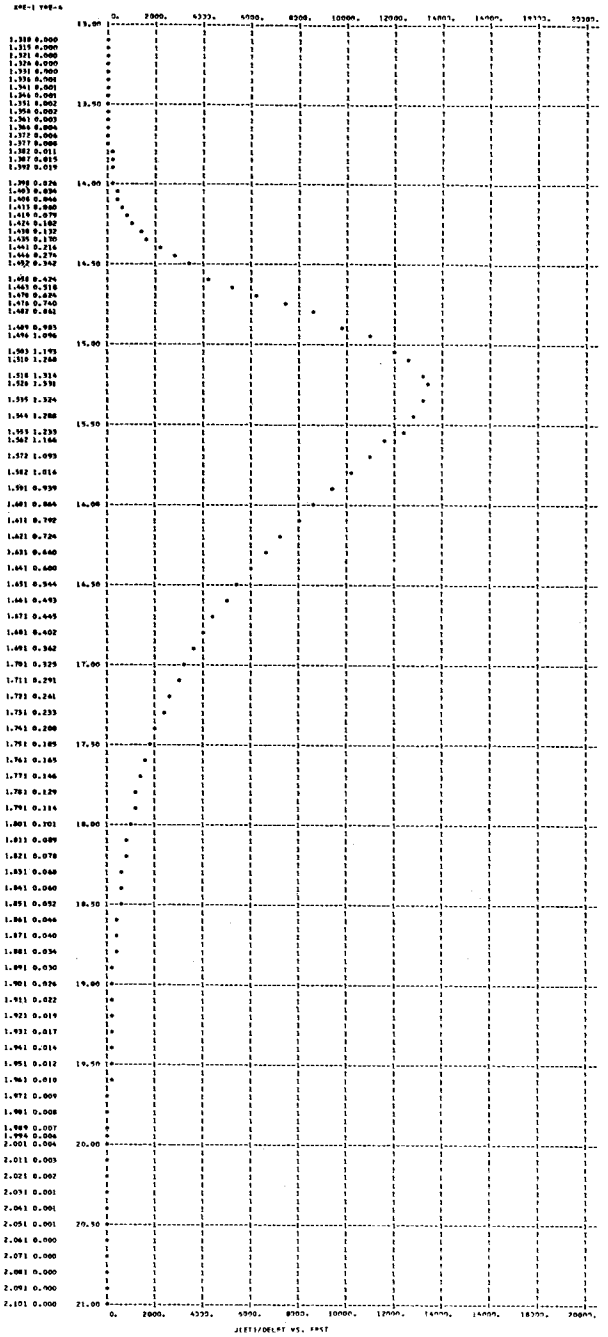
T = 0.30000000E 04 F = 0.10000002E 09 PHI = 8.00 AMU = 15.00 EVMAX = 19.6554

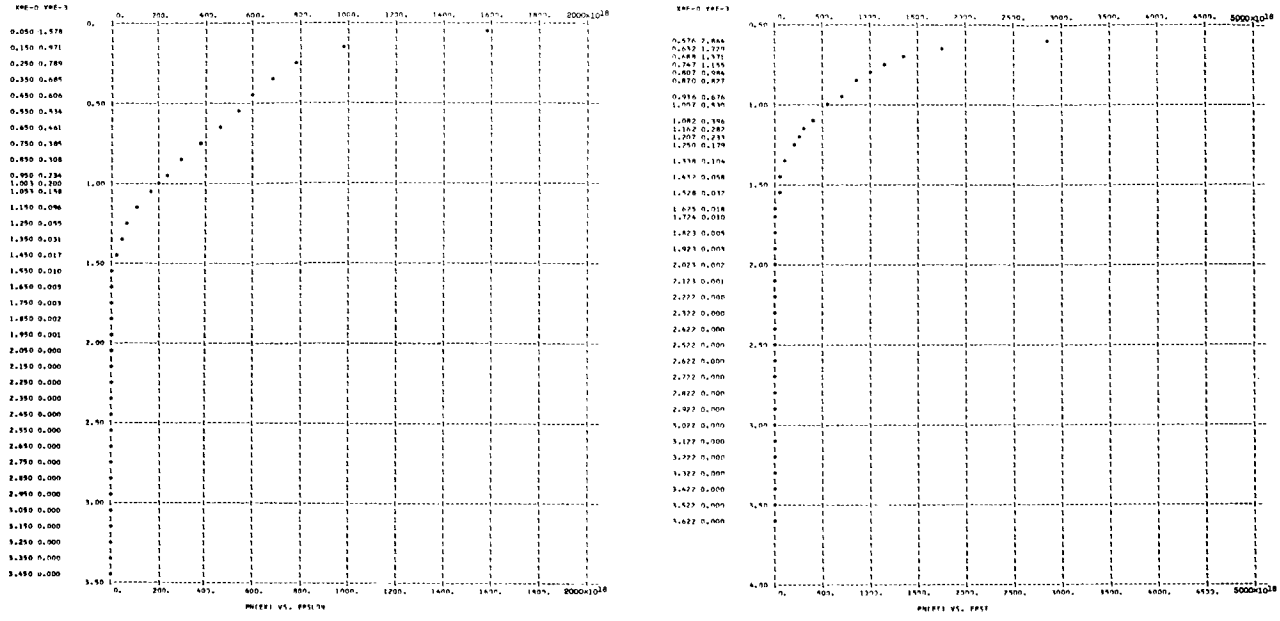
NEM = 0.26404823E 24 NEE = 0.65571073E 15 VXAV = 0.23293432E 09 KEXAV = 0.15441669E 02 KEXEL = 0.35044193E 10

J = 0.24468 6E 05 KETAV= 0.157742E 02 KETEL= 0.368118E 10 TZERO = 0.122036E 06 TO = 0.269645E 04

Figure 3. - Continued.





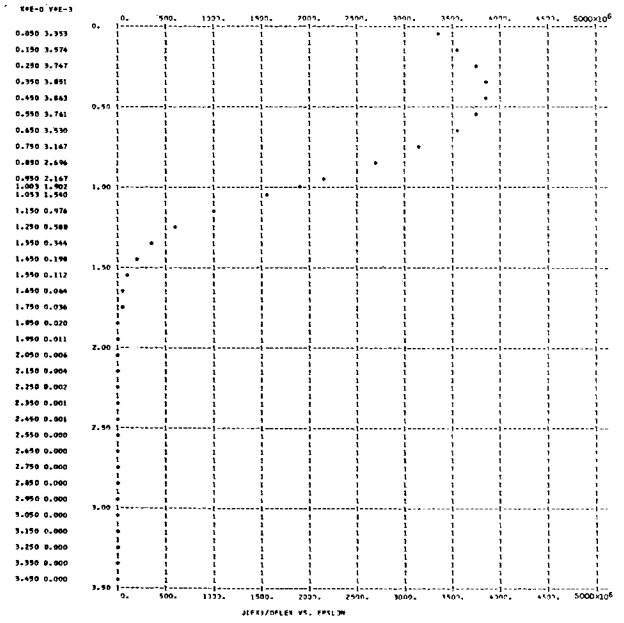


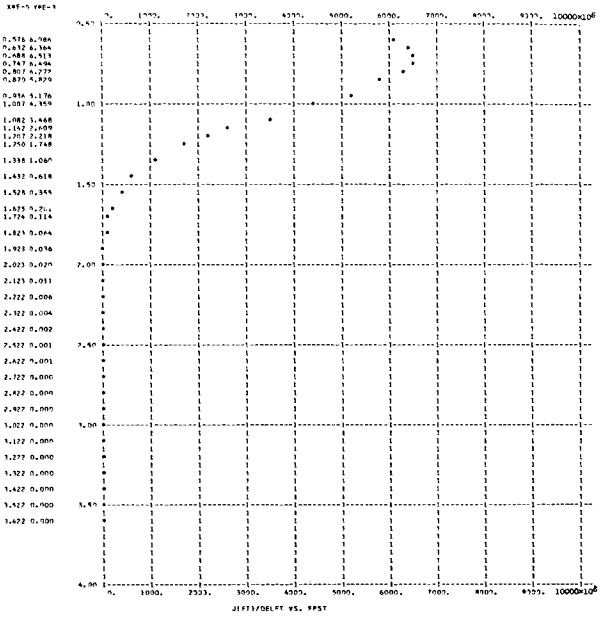
T = 0.20000000E 04 E = 0.10000002E 09 PHI = 2.00 AMU = 1.00 EVMAX = 1.0053

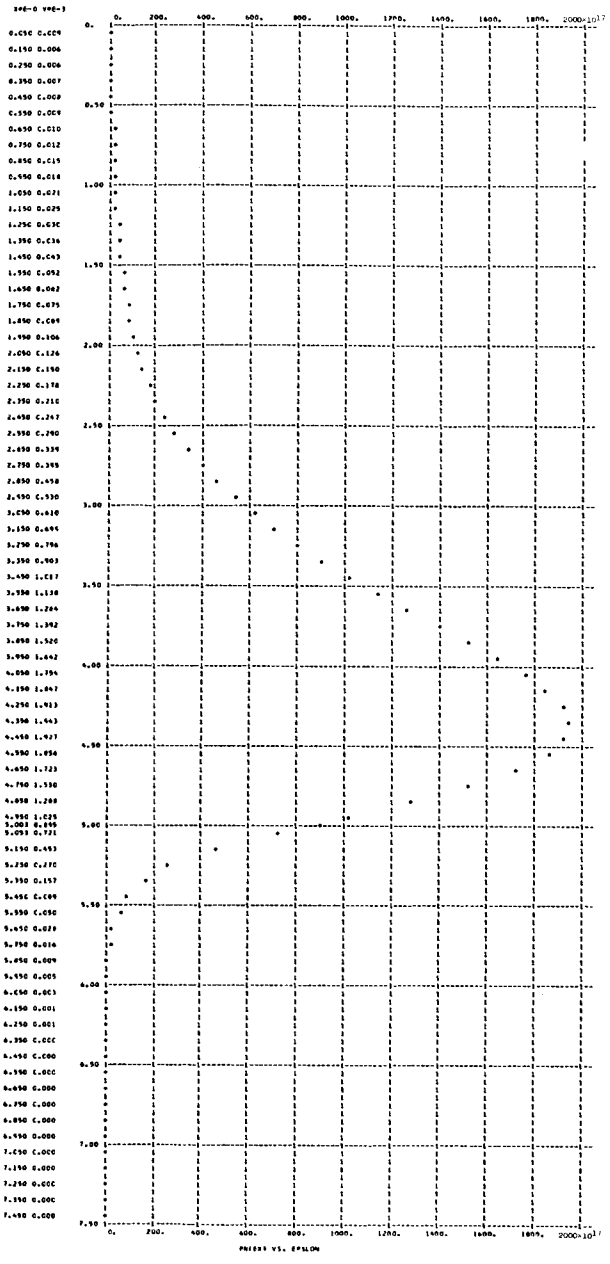
NEM = 0.46732371E 22 NEE = 0.76375361E 21 VXAV = 0.32097398E 08 KEXAV = 0.36640578E-00 KEXFL = 0.16892630E 08

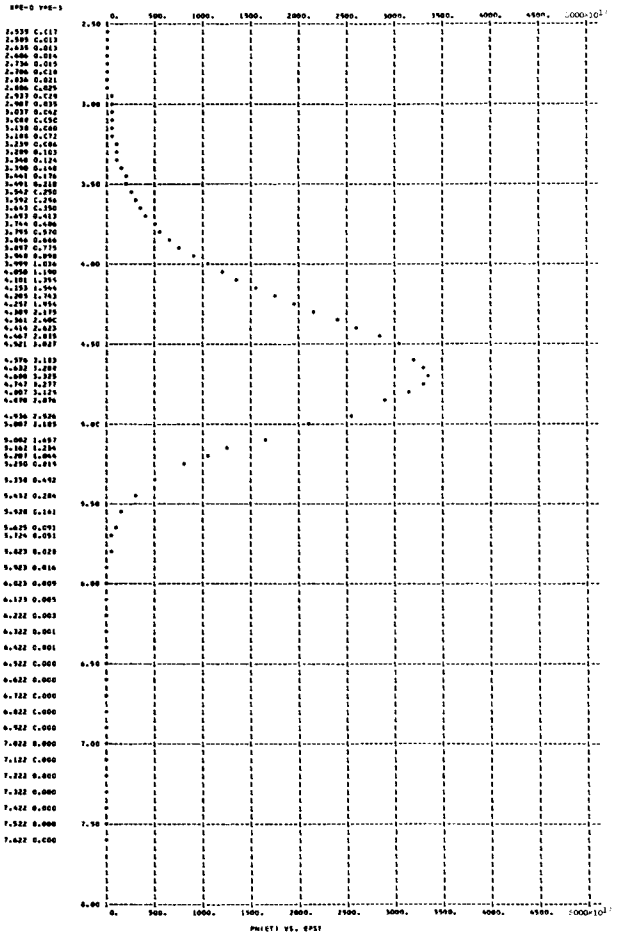
J = 0.39118OE 10 KETAV= 0.771310E 00 KETFL= 0.281014E 08 TZERO = 0.596716E 04 TO = 0.370119E 04

Figure 3. - Continued.







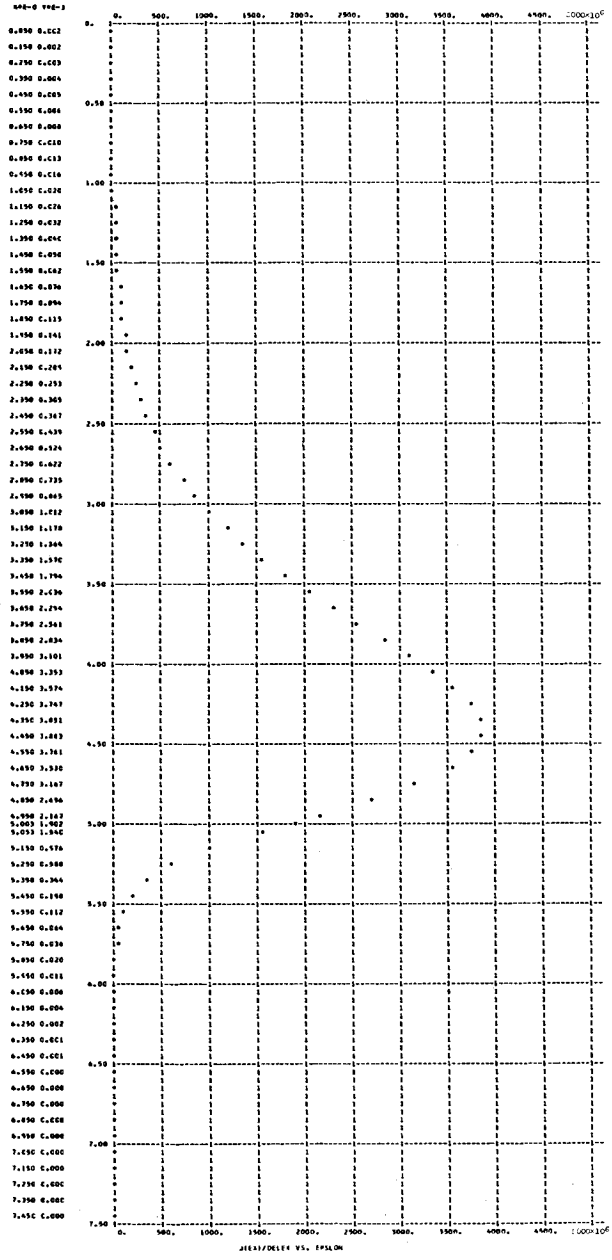


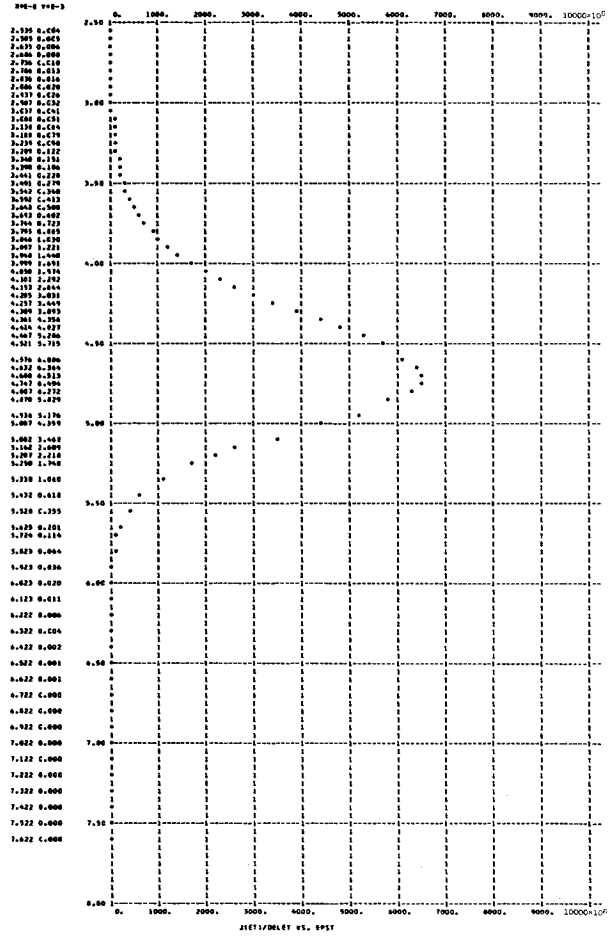
T = 0.20000000E 04 E = 0.10000002E 09 PHI = 2.00 AMU = 5.00 EVMAX = 5.0053

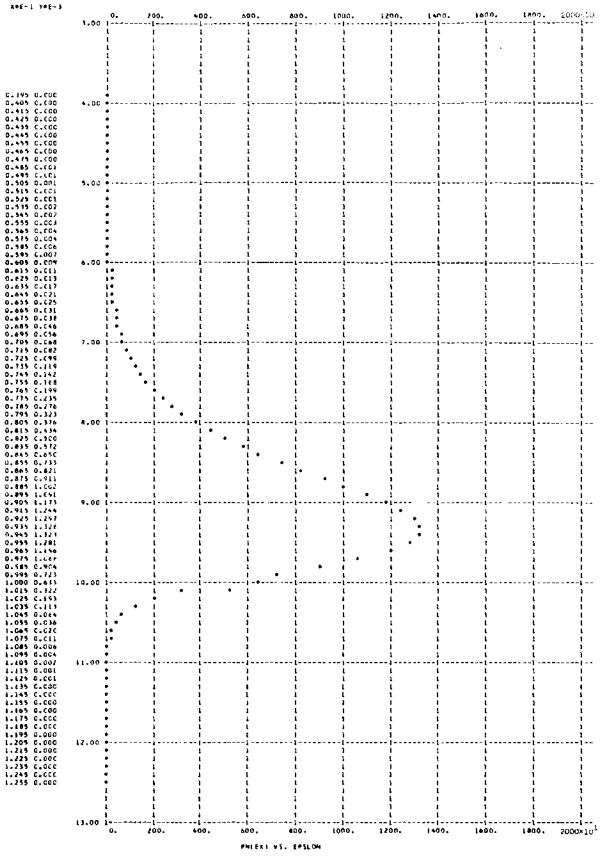
NEM = 0.50836444E 23 NEE = 0.33164515E 21 VXAV = 0.11781417E 09 KEXAV = 0.39917363E 01 KEXFL = 0.48006613E 09

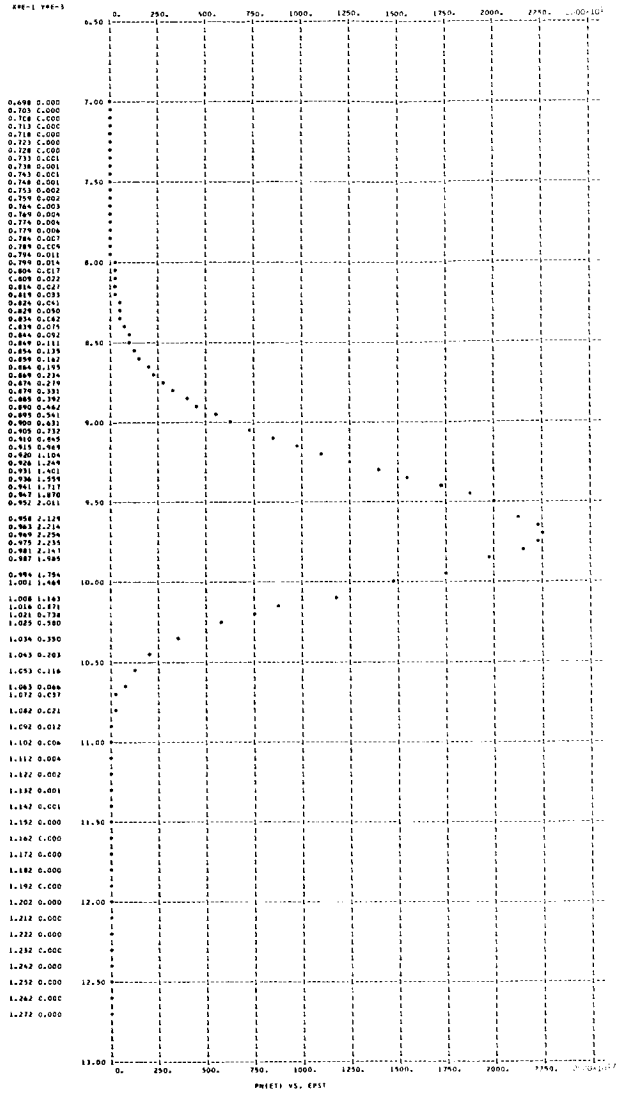
J = 0.62594IE 10 KETAV= 0.457286E 01 KETFL= 0.544232E 09 TZERO = 0.353775E 05 TD = 0.484861E 04

Figure 3. - Continued.







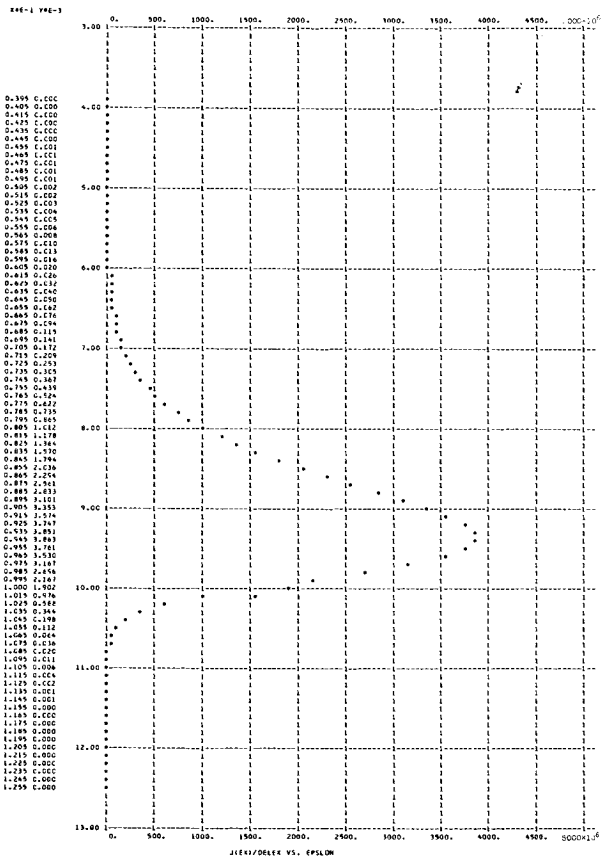


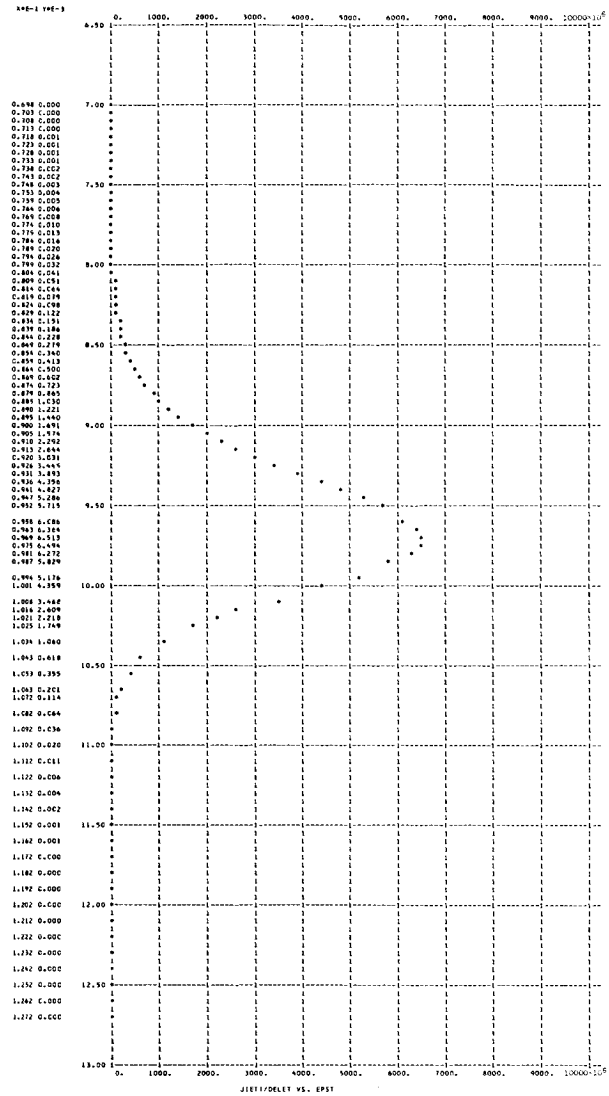
T = 0.20000000E 04 E = 0.10000002E 09 PHI = 2.00 AMU = 10.00 EVMAX = 10.0053

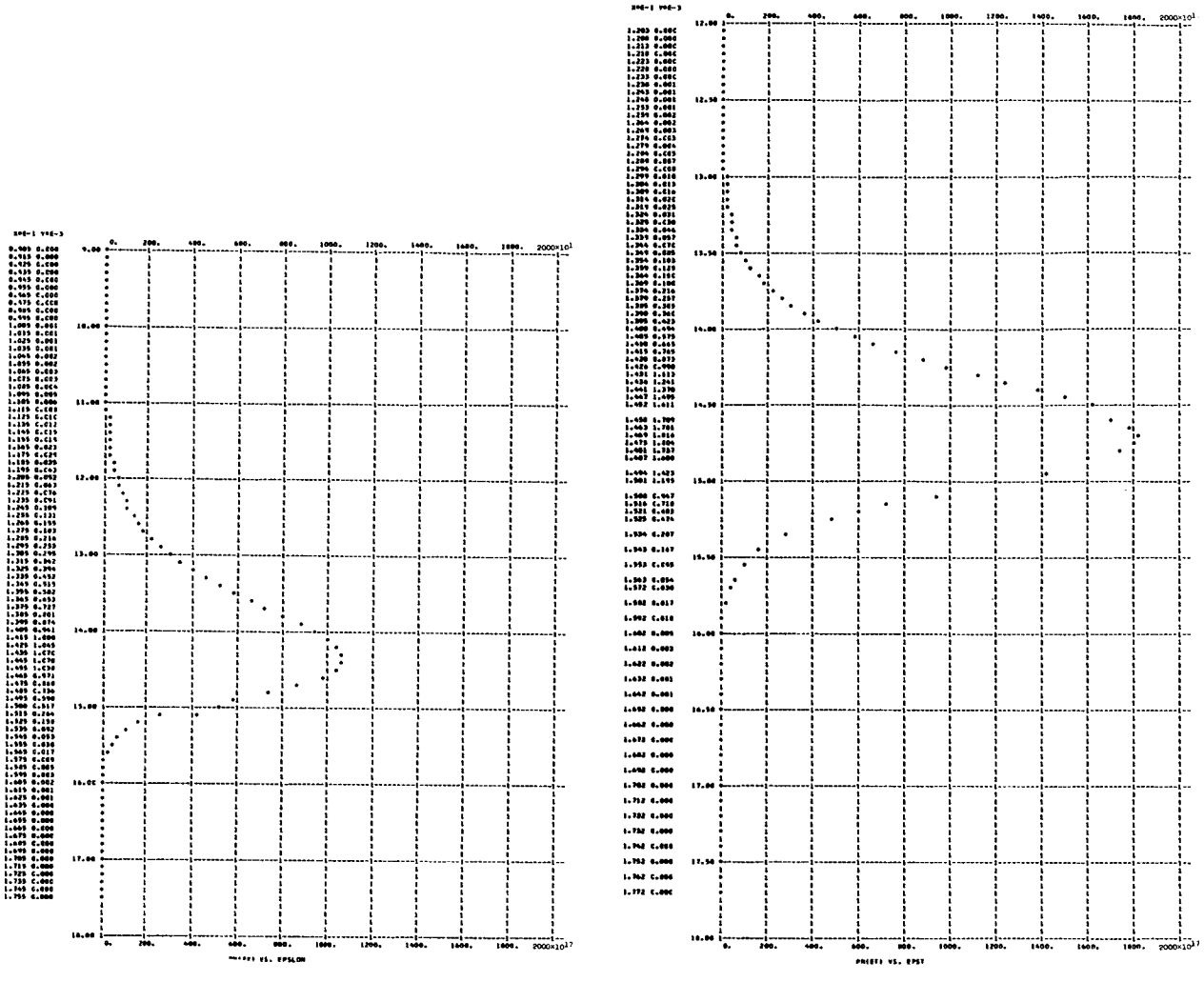
NEM = 0.14370953E 24 NEE = 0.21928498E 21 VXAV = 0.17819324E 09 KEXAV = 0.90432536E 01 KEXFL = 0.16169968F 10

J = 0.625983E 10 KETAV= 0.960149E 01 KETFL= 0.171408E 10 TZERO = 0.742810E 05 TD = 0.444192E 04

Figure 3. - Continued.





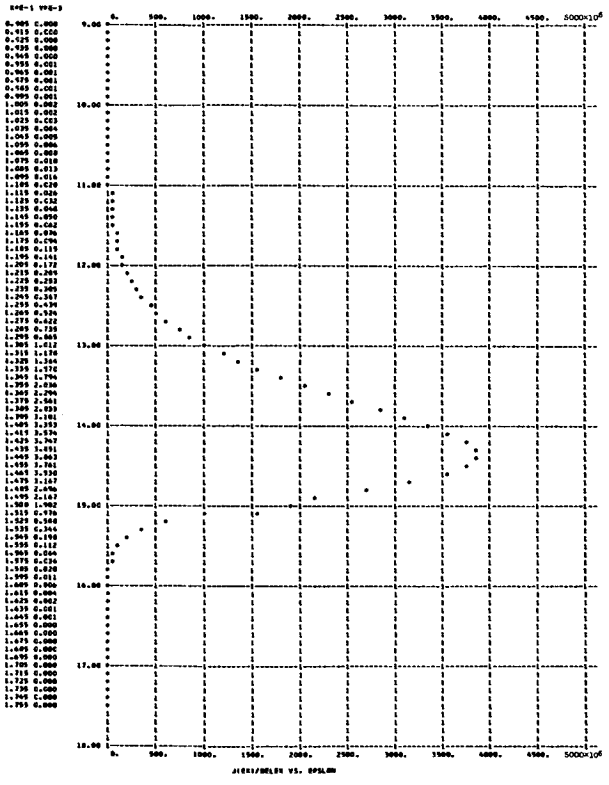


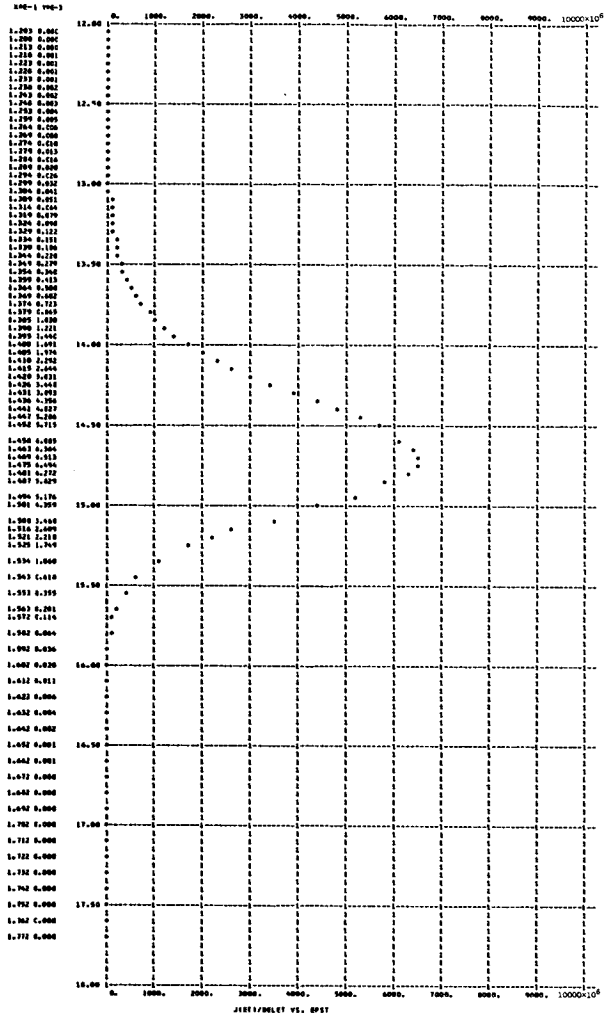
T = 0.20000000E 04 E = C.10000002E 09 PHI = 2.00 AMU = 15.00 EVMAX = 15.0053

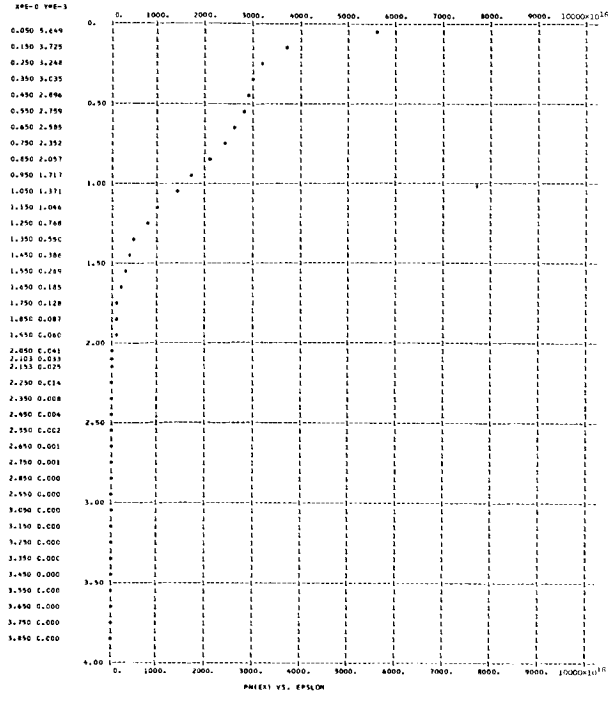
NEM = 0.26399449E 24 NEE = 0.17580312E 21 VXAV = 0.222265688E 09 KEXAV = 0.140548838E 02 KEXFL = 0.31282561E 10

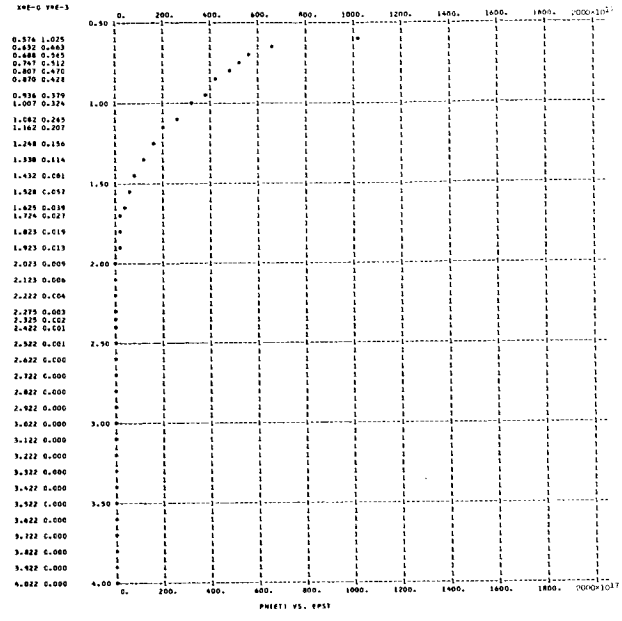
J = 0.625982E 10 KETAV= 0.146081E 02 KETFL= 0.324935E 10 TZERO = 0.113014E 06 TD = 0.435617E 04

Figure 3. - Continued.







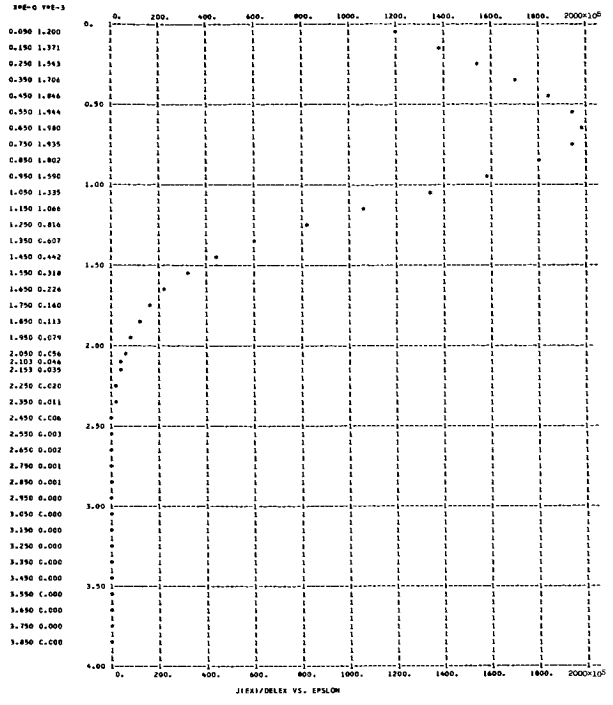


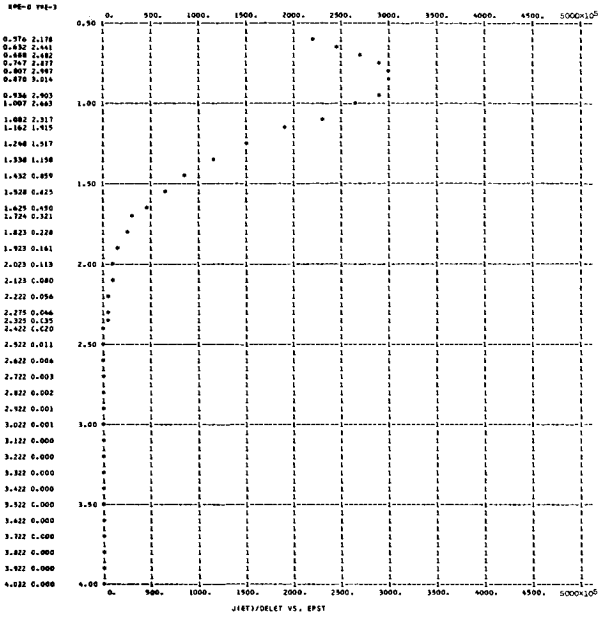
T = 0.20000000E 04 E = 0.10000002E 09 PHI = 4.00 AMU = 1.00 EVMAX = 2.1054

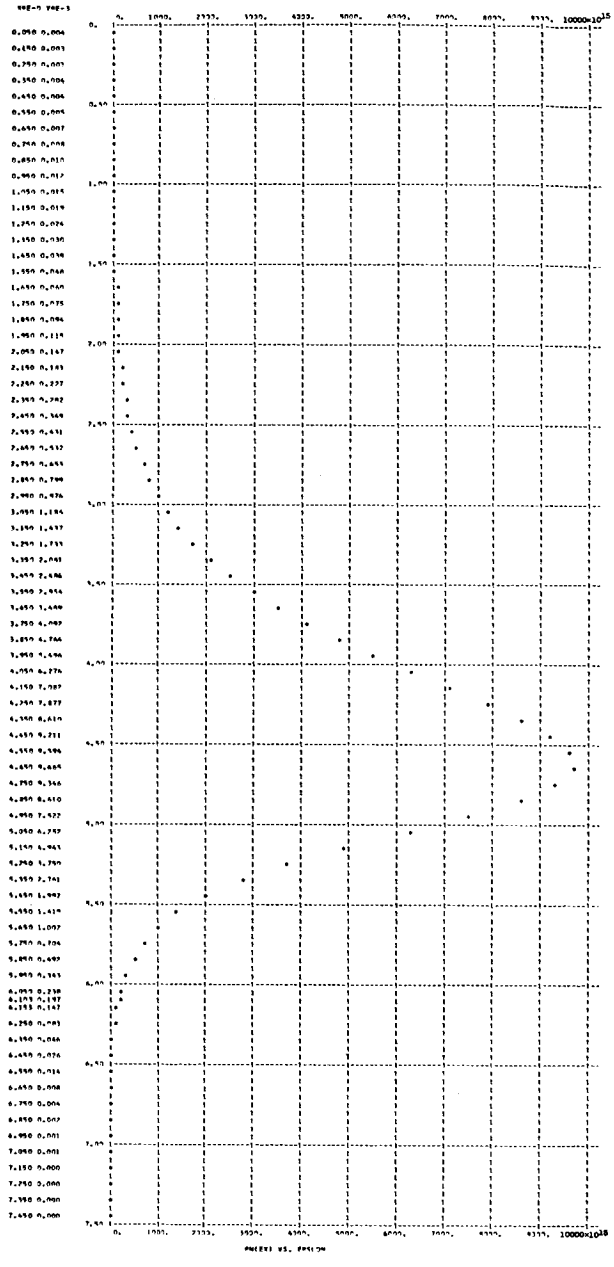
NEM = 0.46731980E 22 NEE = 0.37402067E 20 VXAV = 0.37975916E 08 KEXAV = 0.50373849E 00 KEXFL = 0.26505433E 08

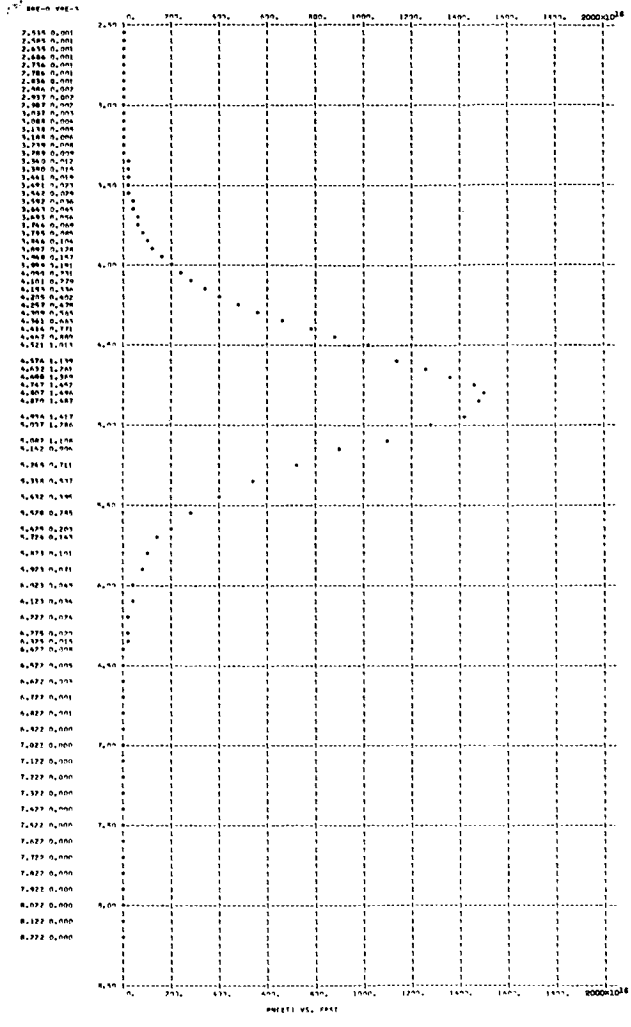
J = 0.227545E 09 KETAV= 0.869576E 00 KETFL= 0.381909E 08 TZERO = 0.672739E 04 TD = 0.355539E 04

Figure 3. - Continued.


J(EX)/DELEX VS. EPSLON


J(ET)/DELET VS. EPST



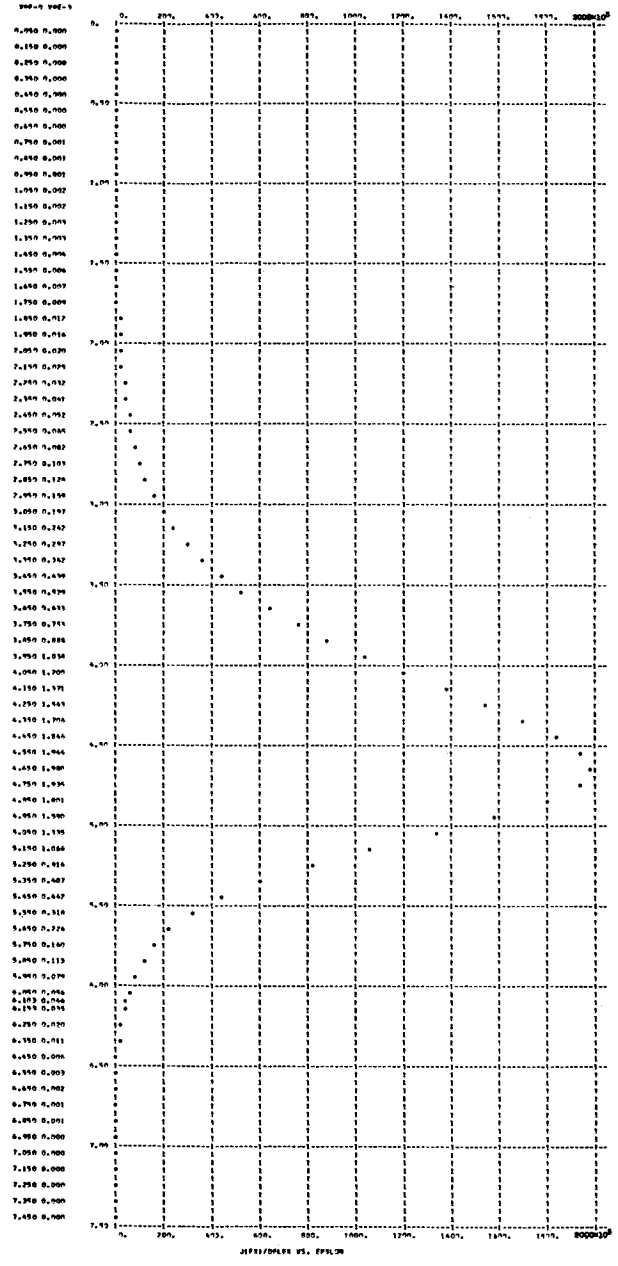


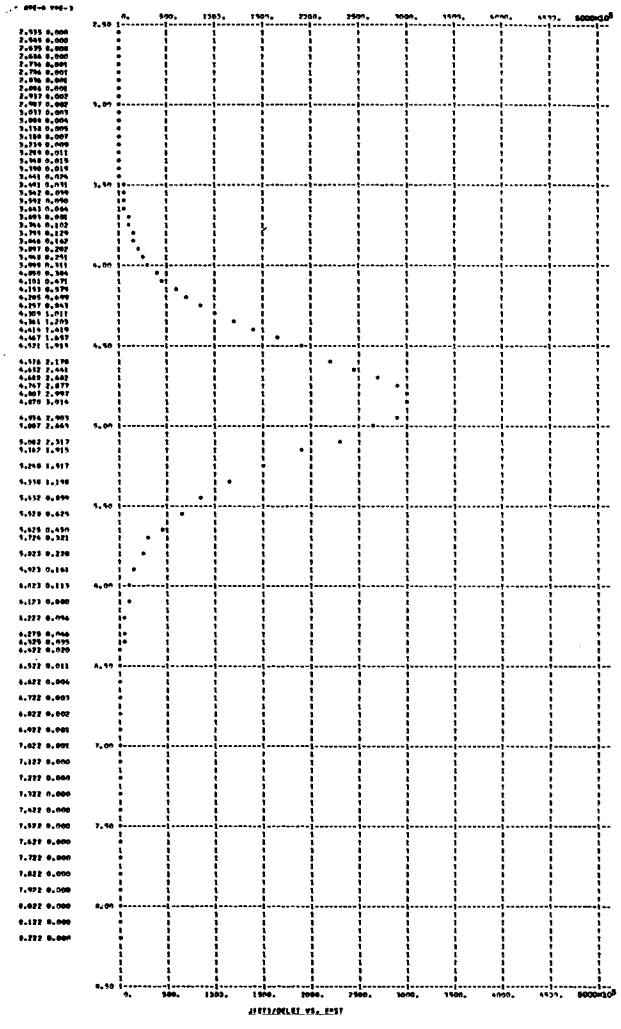
T = 0.20000000E 04 F = 0.10000002E 09 PHI = 4.00 AMU = 5.00 EVMAX = 6.1054

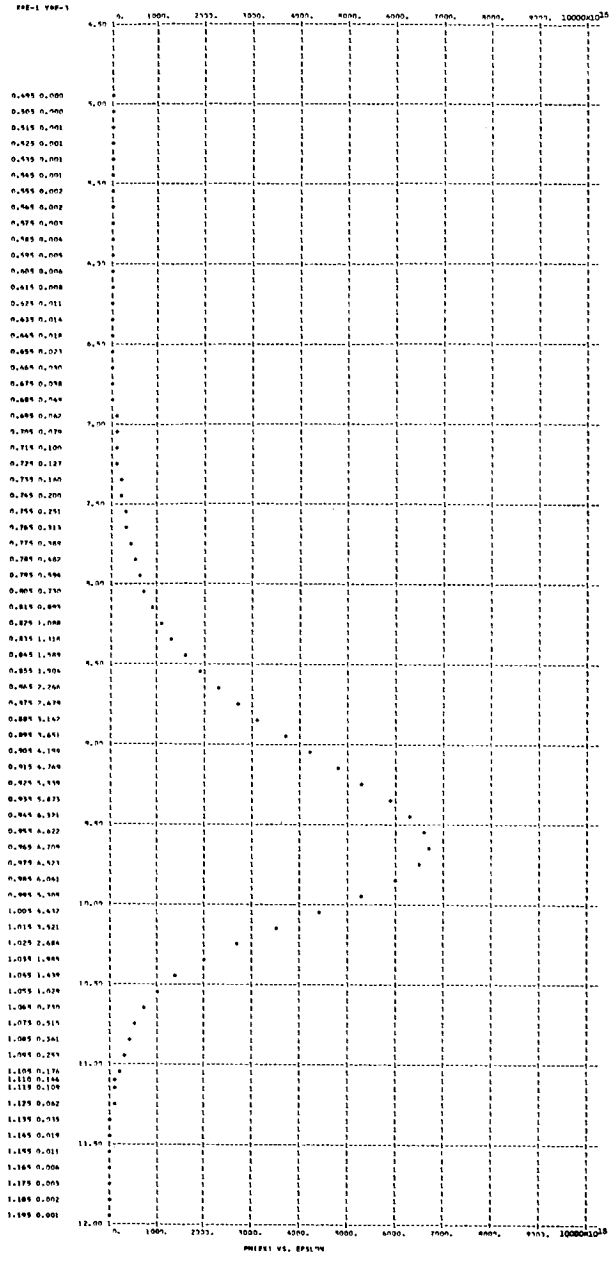
NEM = 0.5083643DE 23 NEE = 0.14291023E 23 VXAV = 0.12392378E 09 KEXAV = 0.43954519E 01 KEXFL = 0.55166294E 09

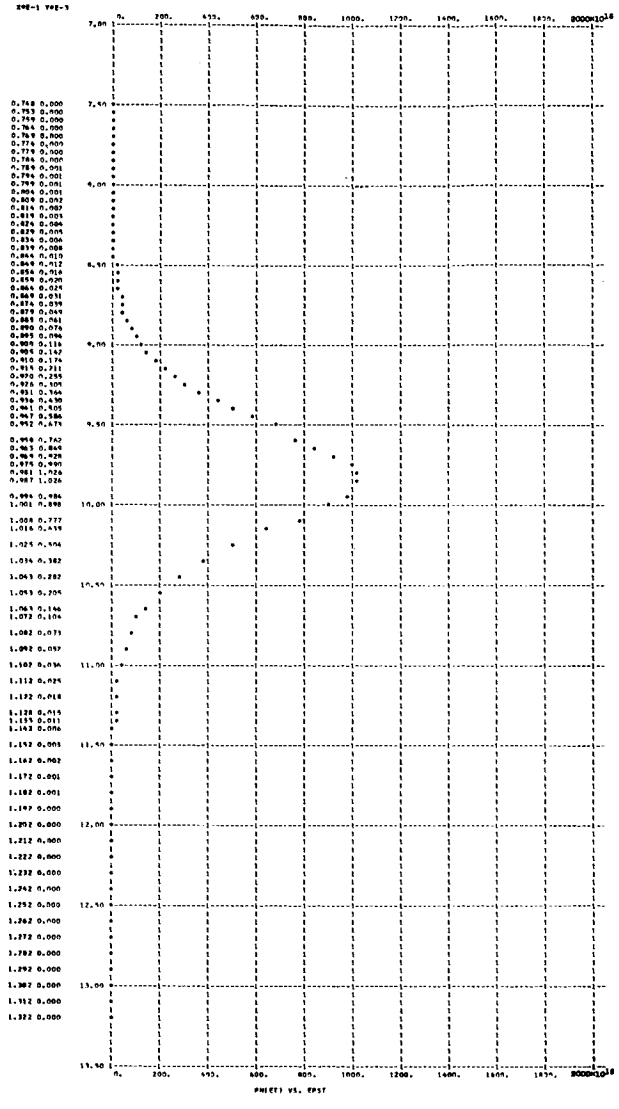
J = 0.283707E 09 KETAV= 0.482276E 01 KETFL= 0.602024E 09 TZERO = 0.373108E 05 TD = 0.353512E 04

Figure 3. - Continued.







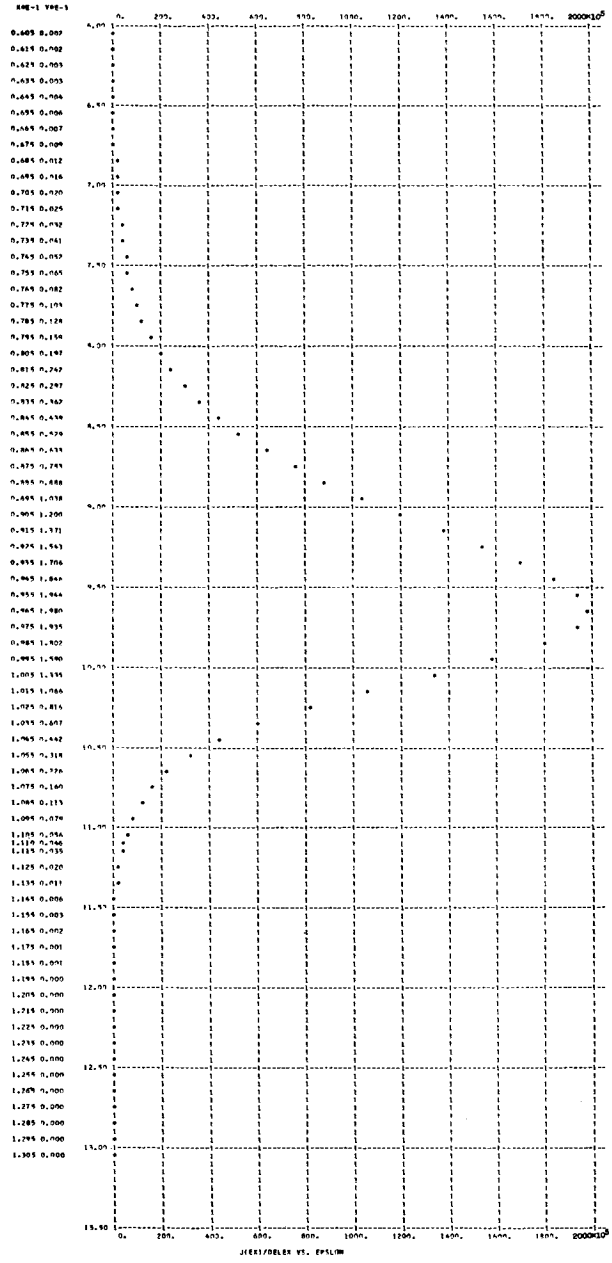


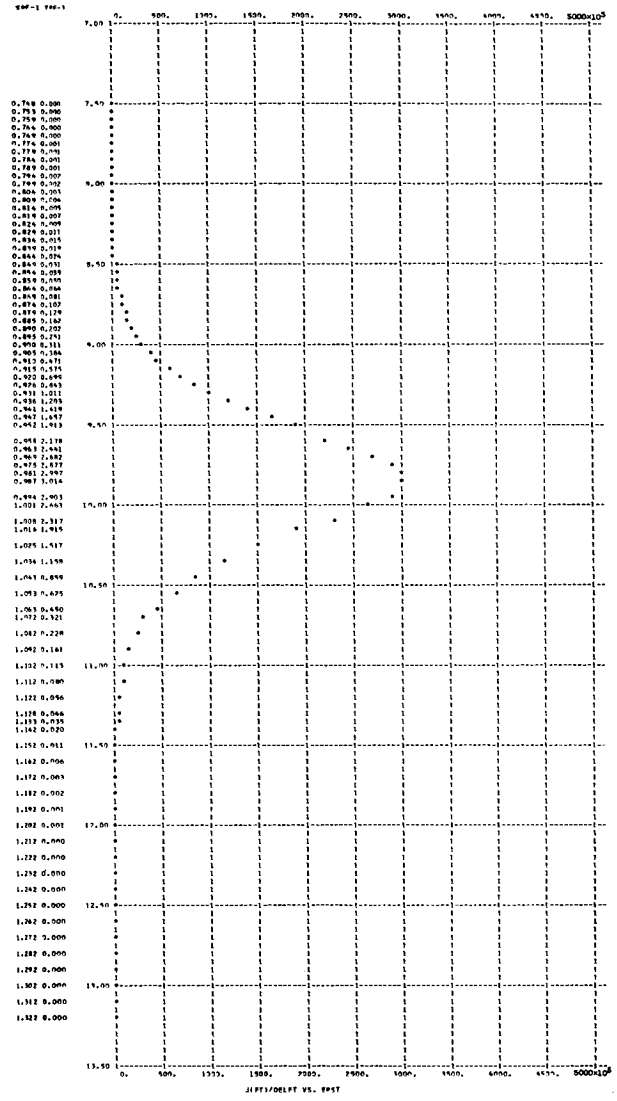
T = 0.20000000E 04 E = 0.10000002E 09 PHI = 4.00 ANU = 10.00 EVMAX = 11.1054

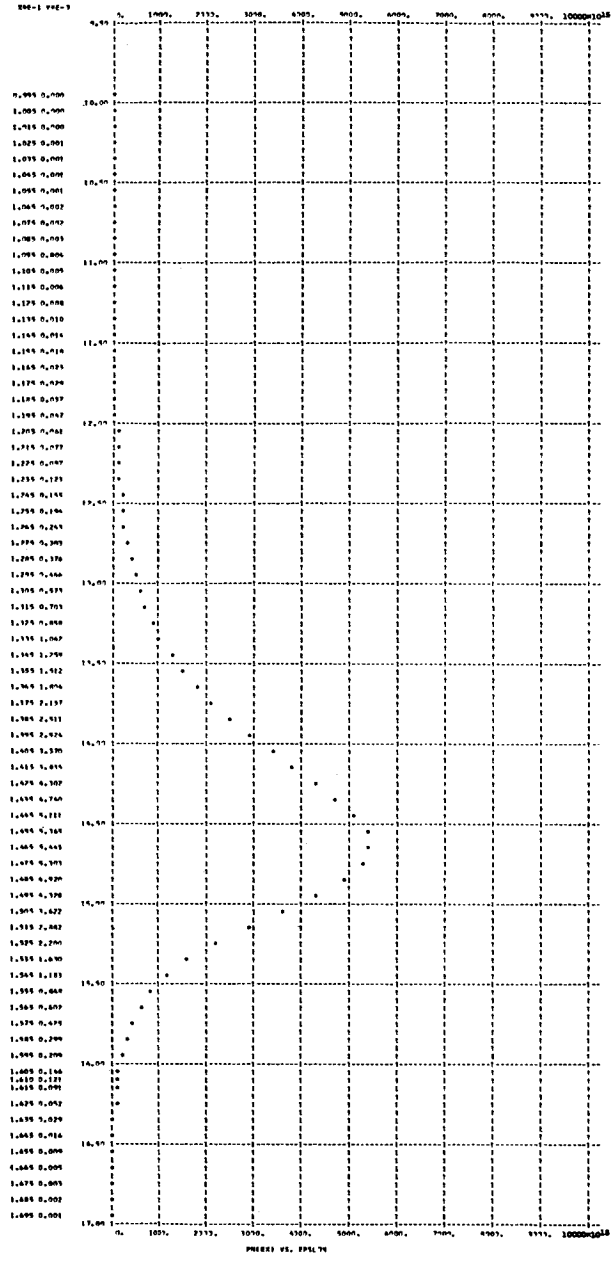
NEM = 0.14370953E 24 NEE = 0.97313267E 19 VXAV = 0.18198401E 09 KEXAV = 0.94276834E 01 KEXFL = 0.17200594E 10

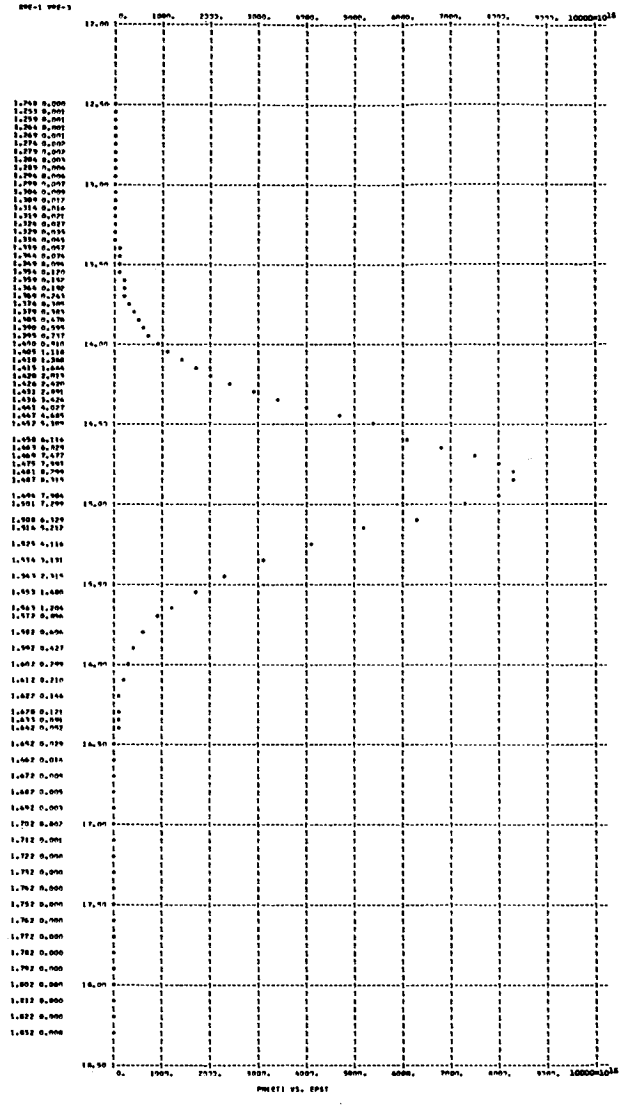
J = 0.283706E 09 KETAV= 0.984273E 01 KETFL= 0.179402E 10 TZERO = 0.761473E 05 TD = 0.330526E 04

Figure 3. - Continued.


0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000X10^5
J(EE)/DELEX VS. EPSLON


0. 500. 1000. 1500. 2000. 2500. 3000. 3500. 4000. 4500. 5000X10^5
J(PI)/DELPI VS. EPST



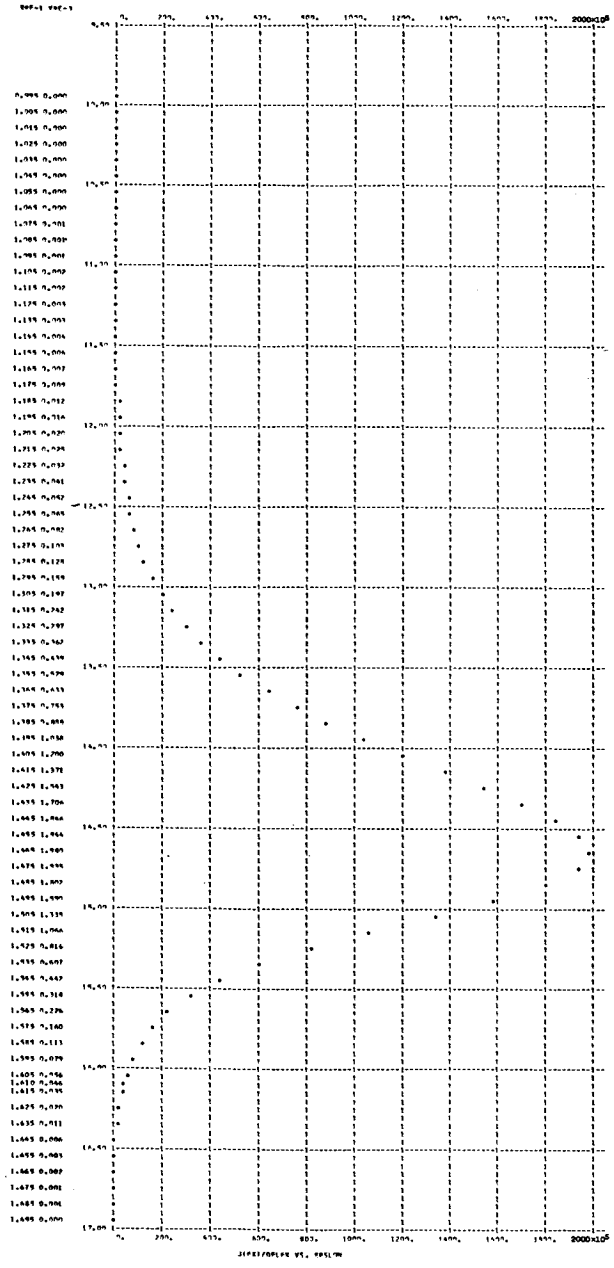


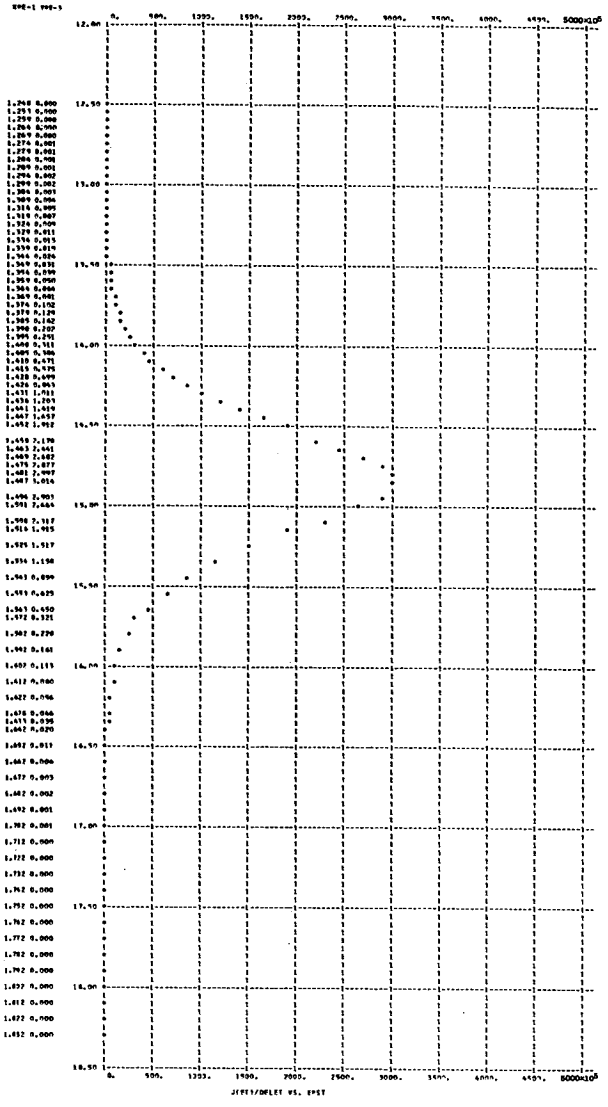
T = 0.20000000E 04 E = 0.10300002E 09 PHI = 4.70 AMU = 15.00 EVMAX = 16.1054

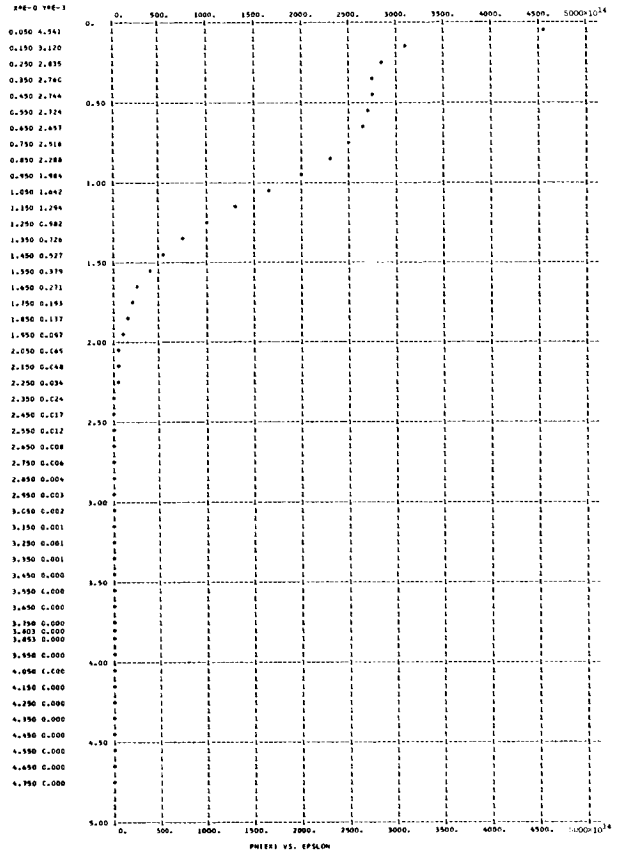
NEM = 0.26399449E 24 NEF = 0.79610596E 19 VXAV = 0.22527976E 09 KEXAV = 0.144362796E 02 KEYFL = 0.325557695E 10

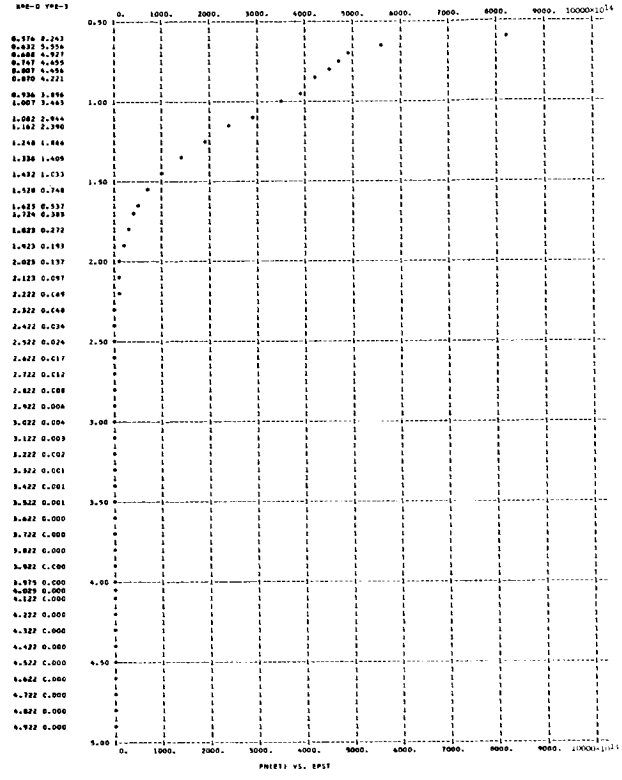
J = 0.283704E 09 KETAV= 0.148482E 02 KETFL= 0.334723E 10 TZERO = 0.1148726E 05 TJ = 0.3245905E 04

Figure 3. - Continued.







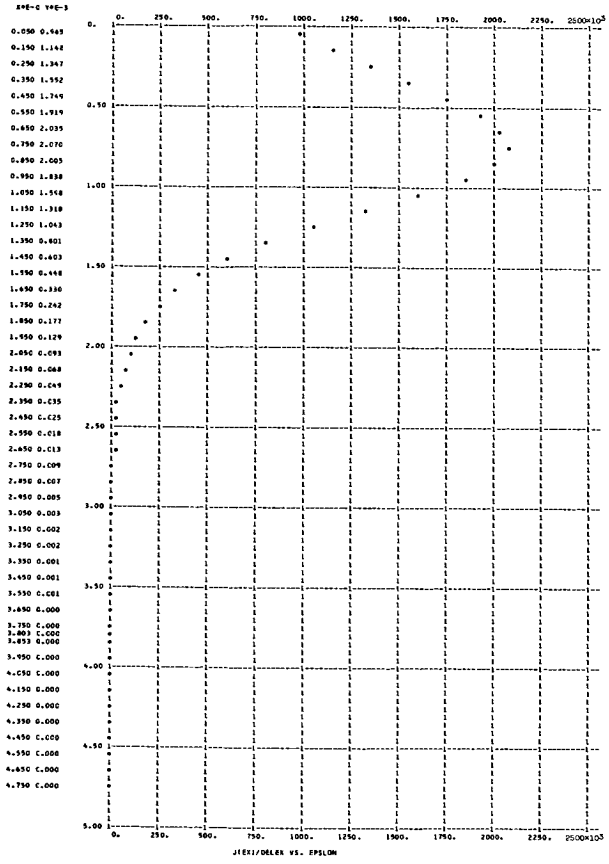


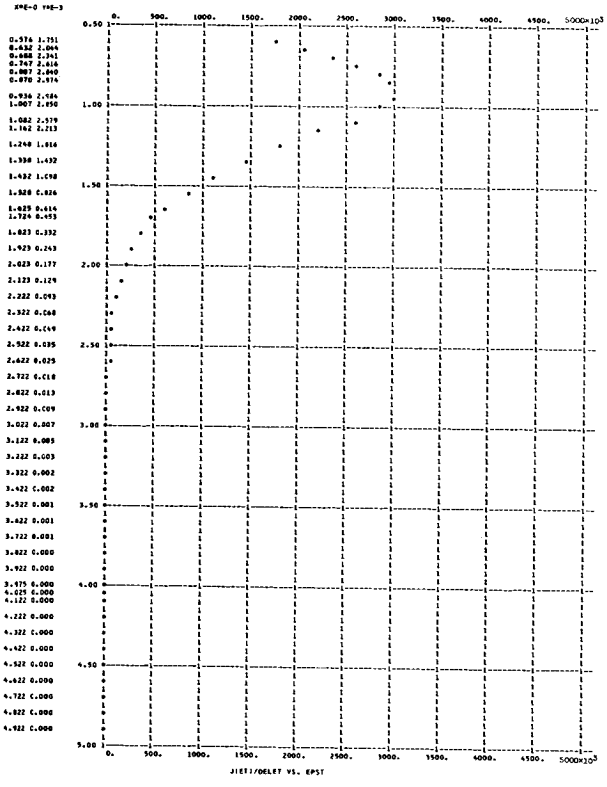
T = 0.20000000E 04 E = 0.10000002E 09 PHI = 6.00 AMU = 1.00 EVMAX = 3.8054

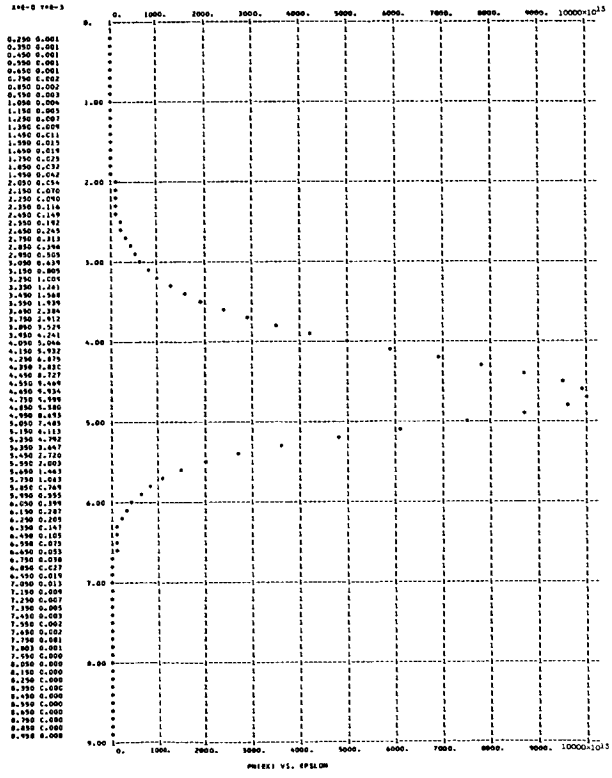
NEM = 0.46731979E 22 NEE = 0.36611027E 18 VXAV = 0.41070093E 08 KEXAV = 0.57880406E 00 KEXFL = 0.31991139E 08

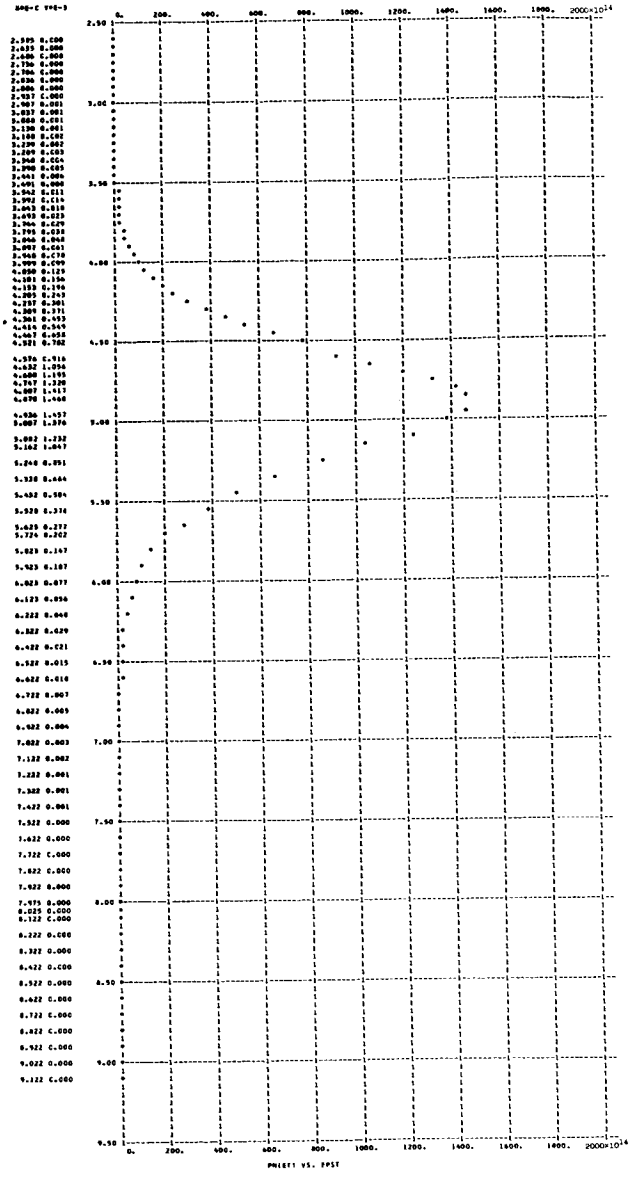
J = 0.240880E C7 KETAV= 0.924567E 00 KETFL= 0.439086E 08 TZERO = 0.715282E 04 TD = 0.344288E 04

Figure 3. - Continued.


JIEXI/DELEX VS. EPSLON


JIET/DELET VS. EPST



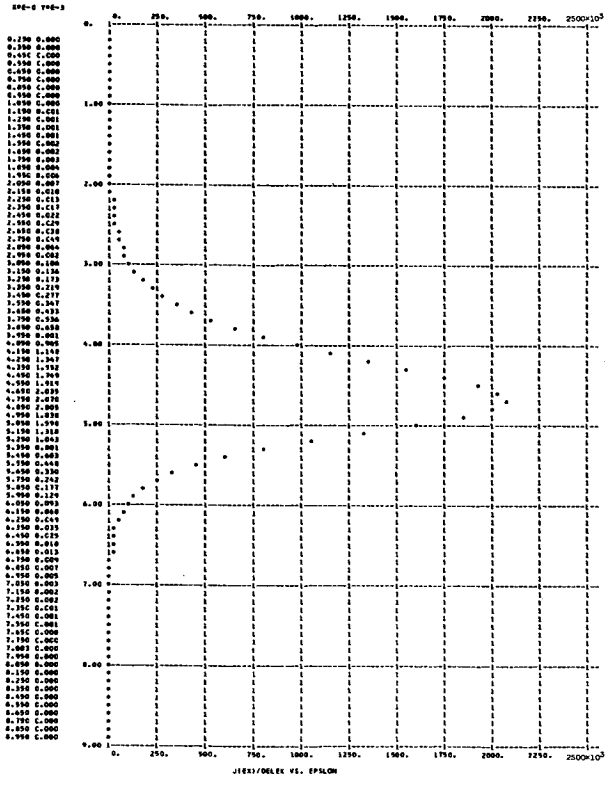


T = 0.20000000E 04 E = 0.10000002E 09 PHI = 6.00 AMU = 5.00 EVMAX = 7.8054

NEM = 0.50836430E 23 NEE = 0.13669596E 18 VXAV = 0.12644293E 09 KEXAV = 0.45690323E 01 KEXFL = 0.58352379E 09

J = 0.276893E 07 KETAV= 0.493719E 01 KETFL= 0.628193E 09 TZERO = 0.381961E 05 TD = 0.303157E 04

Figure 3. - Continued.


0.
250.
500.
750.
1000.
1250.
1500.
1750.
2000.
2250.
2500×10³
1.00
2.00
3.00
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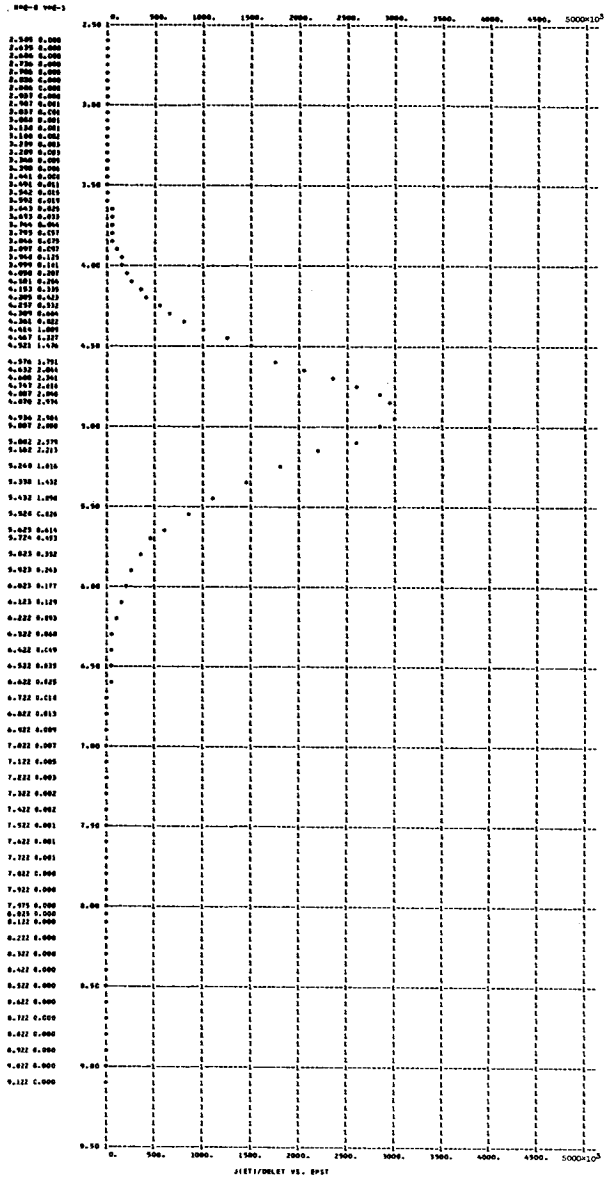
7.00
8.00
9.00


0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000×10³
2.50
3.00
3.50
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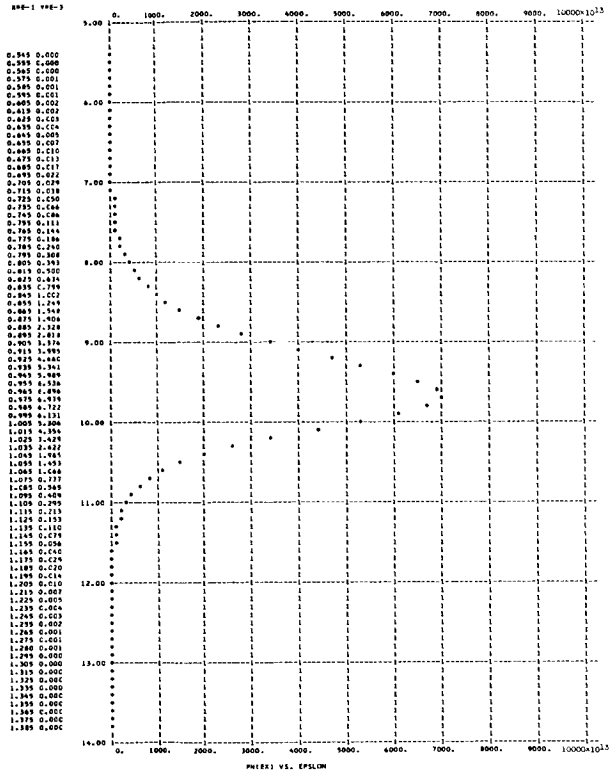
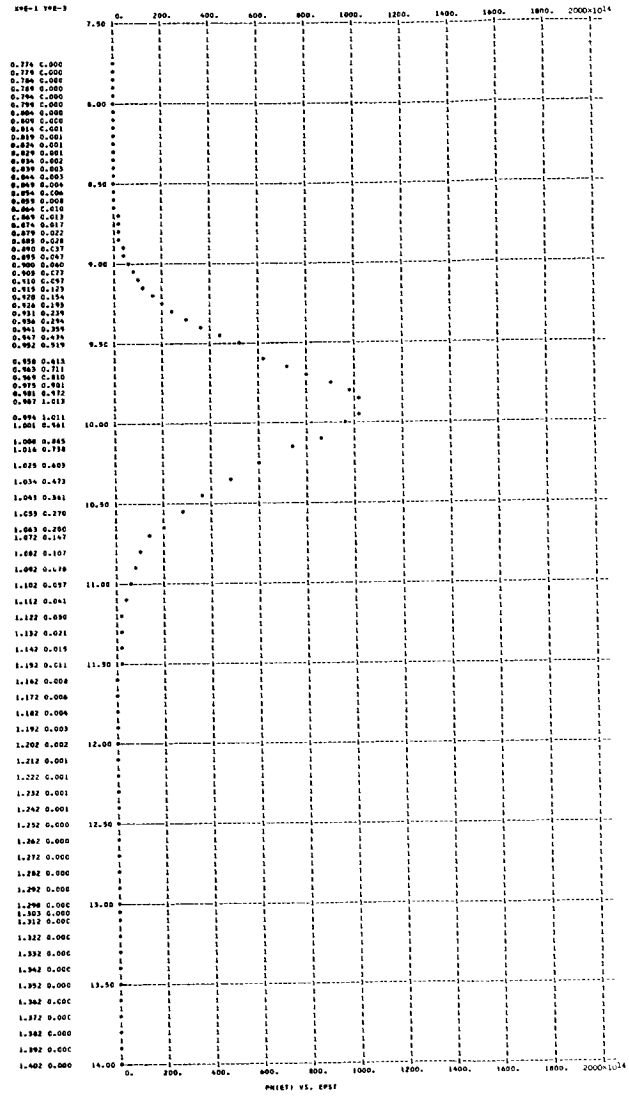
8.50
9.00
9.50



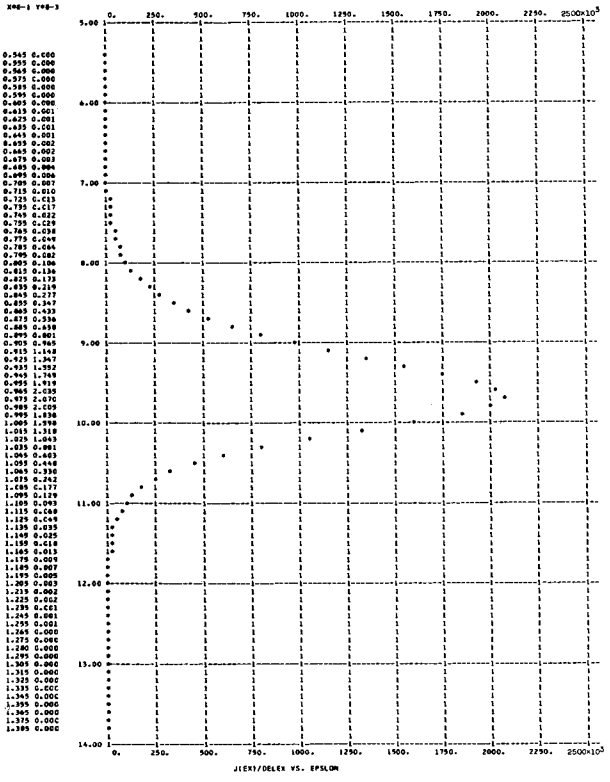


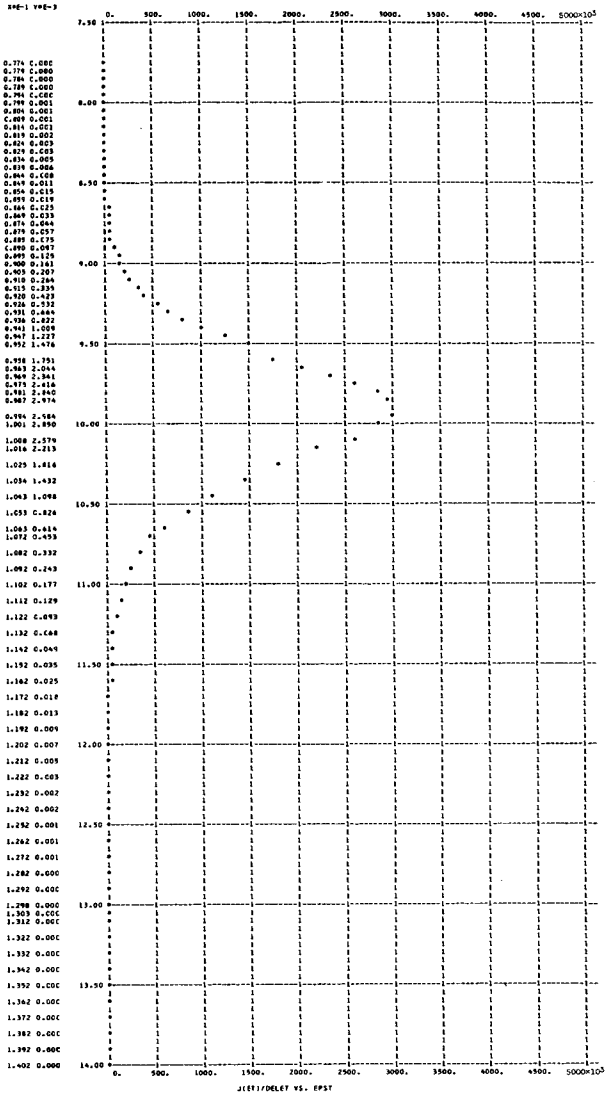
T = 0.20000000E 04 E = 0.10000002E 09 PHI = 6.00 AMU = 10.00 EVMAX = 12.8054

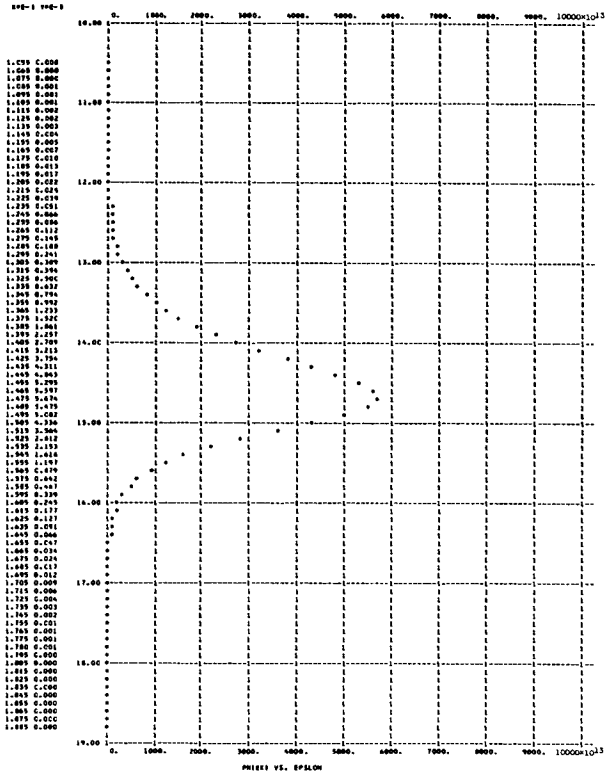
NEM = 0.14370953E 24 NEE = 0.94137934E 17 VXAV = 0.18360325E 09 KEXAV = 0.95942320E 01 KEXFL = 0.17653296E 10

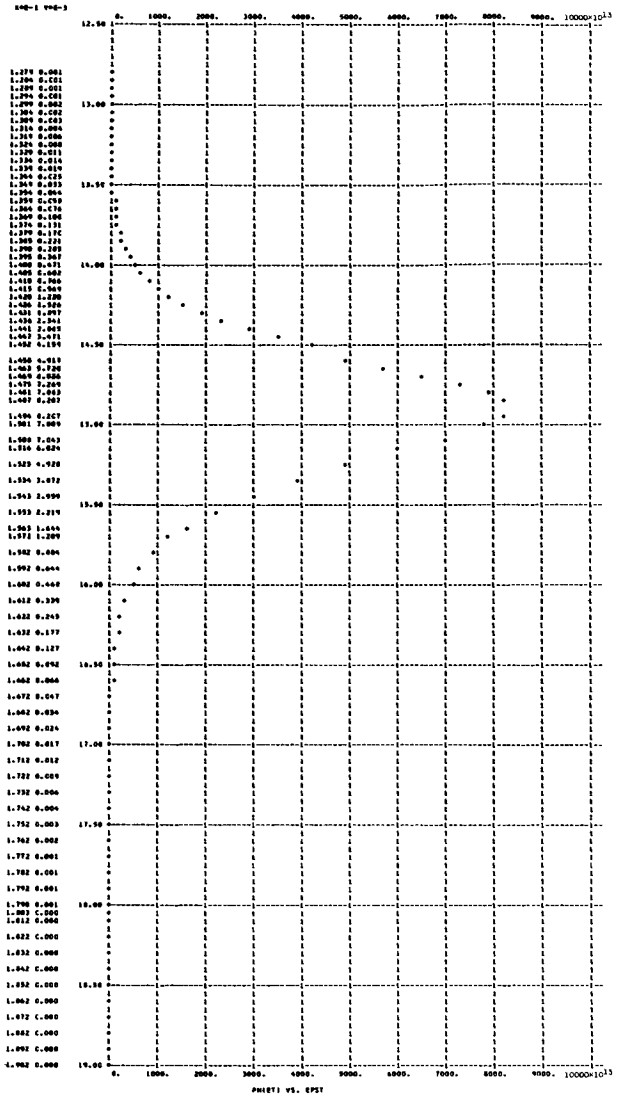
J = 0.276890E 07 KETAV= 0.995396E 01 KETFL= 0.183019E 10 TZERO = 0.770078E 05 TD = 0.286375E 04

Figure 3. - Continued.


J(EX)/DELEX VS. EPSLON


J(ET)/DELET VS. EPST



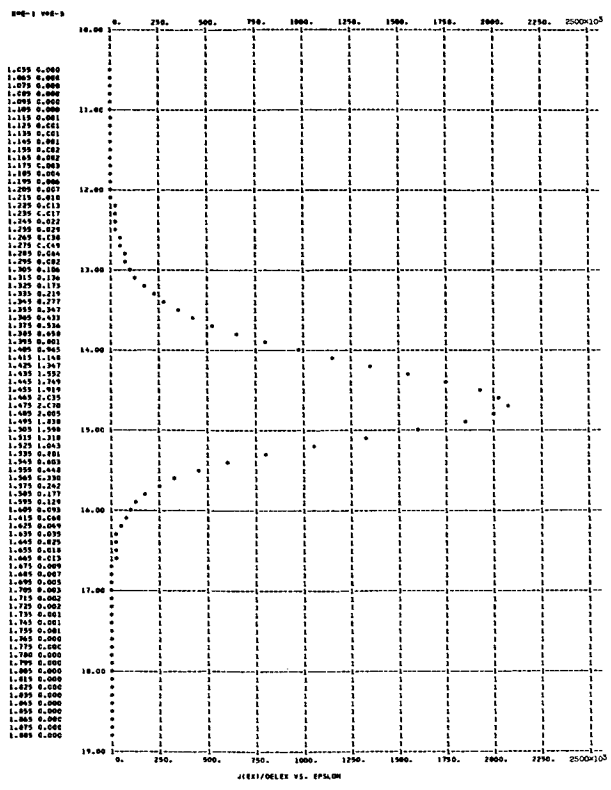


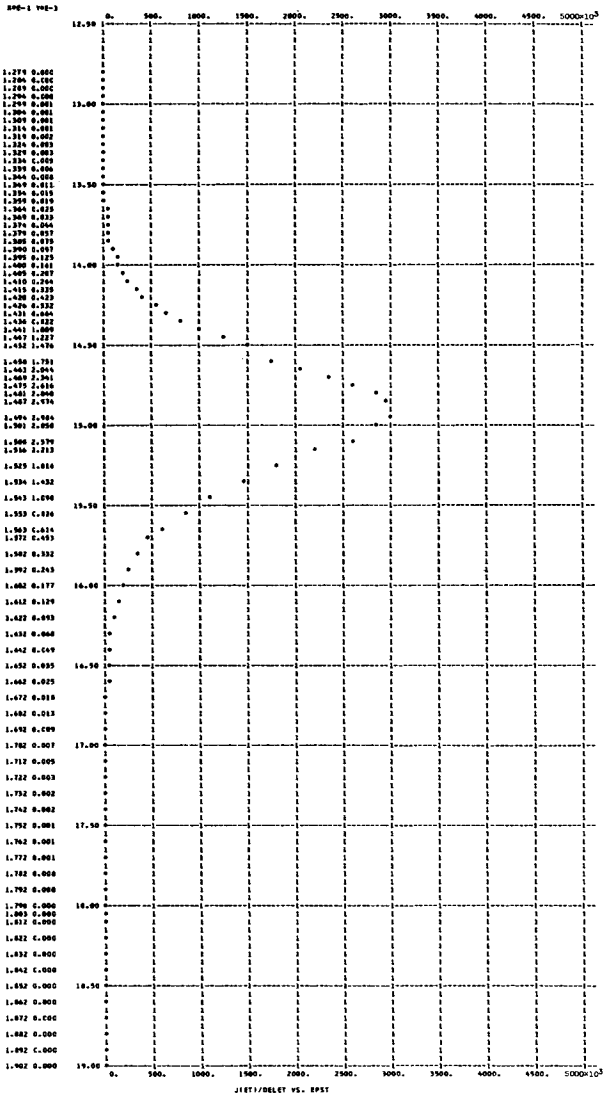
T = 0.20000000E 04 E = C.1C0000002E 09 PHI = 6.00 AMU = 15.00 EVMAX = 17.8054

NEM = 0.26399449E 24 NEE = 0.76283980E 17 VXAV = 0.22657364E 09 KEXAV = 0.14601469E 02 KEXFL = 0.33113541E 10

J = 0.276889E 07 KETAV= 0.149589E 02 KETFL= 0.339140E 10 TZERO = 0.1157286E 06 TD = 0.281744E 04

Figure 3. - Continued.


RHO-1 VHS-1
0.
250.
500.
750.
1000.
1250.
1500.
1750.
2000.
2250.
2500×10³
16.00
17.00
18.00
19.00
J(EE)/DELEX VS. EPSLON


RHO-1 VHS-1
0.
500.
1000.
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2000.
2500.
3000.
3500.
4000.
4500.
5000×10³
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13.00
13.50
14.00
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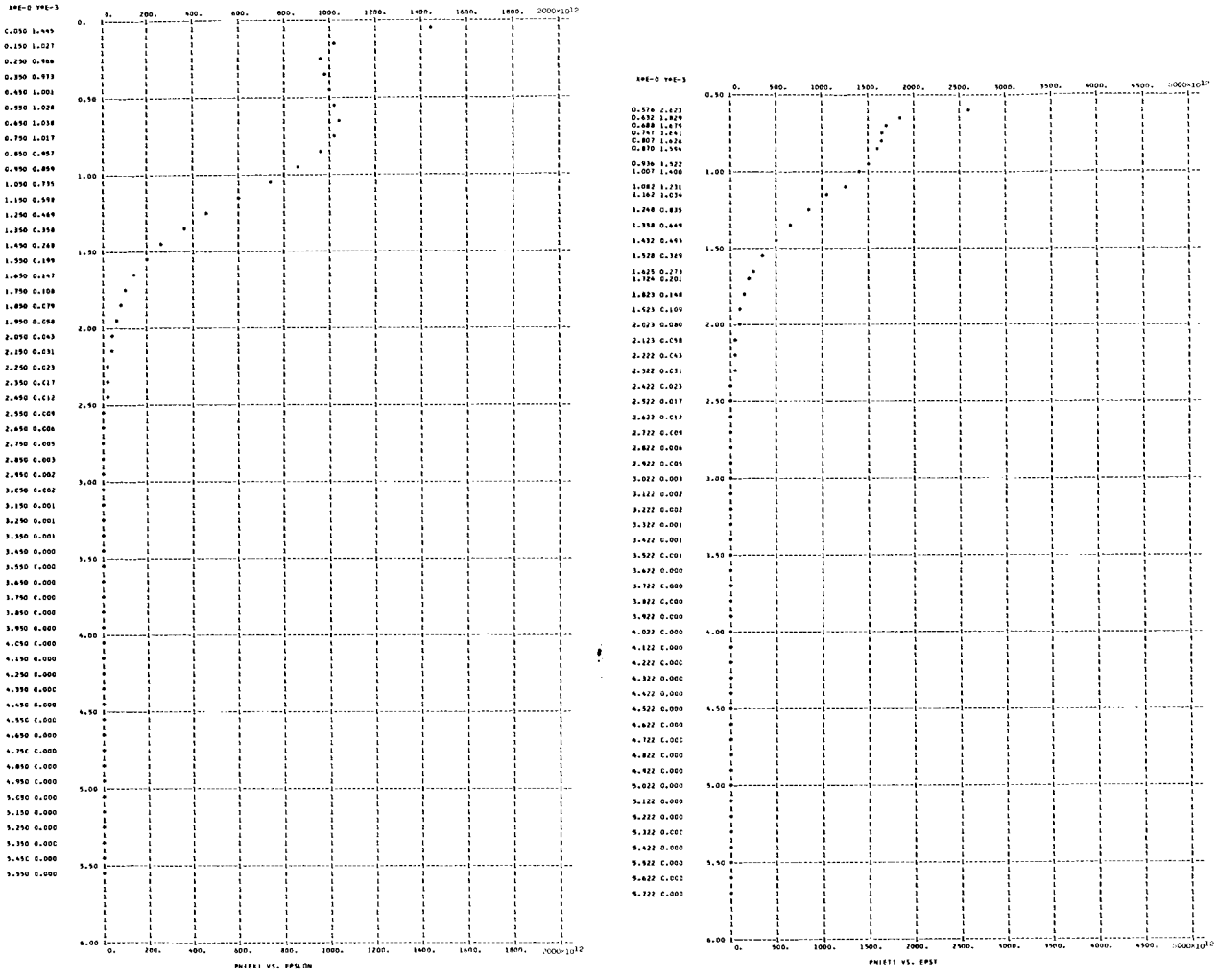
15.50
16.00
16.50
17.00
17.50
18.00
18.50
19.00
J(ET)/DELET VS. EPST

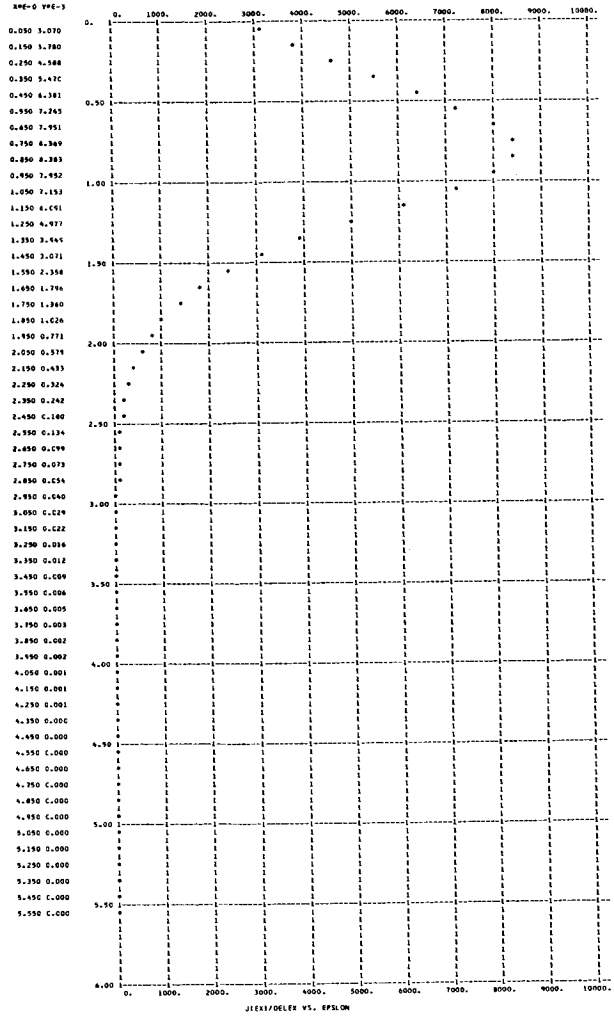


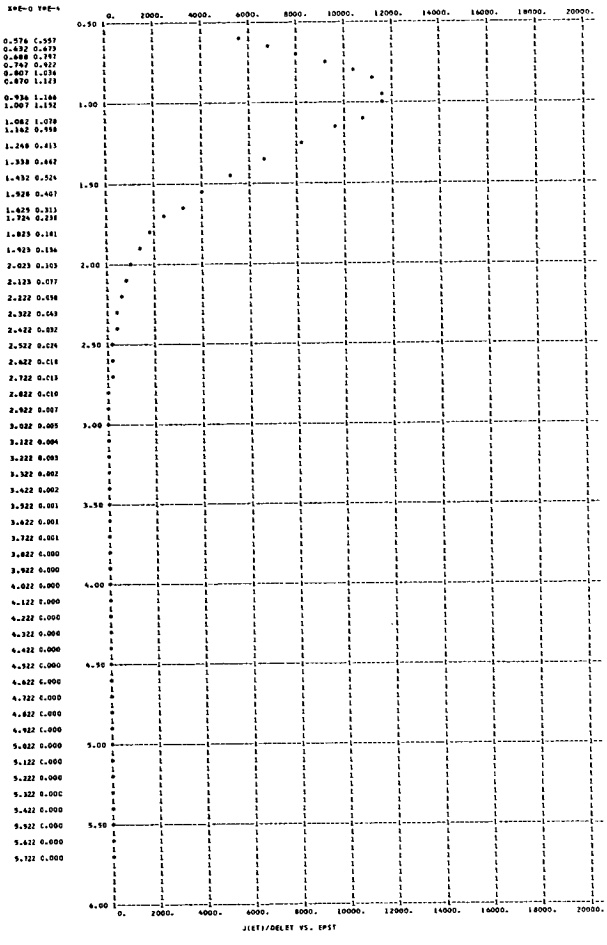
T = 0.20000000E 04 E = 0.10000002E 09 PHI = 8.00 AMU = 1.00 EVMAX = 5.6554

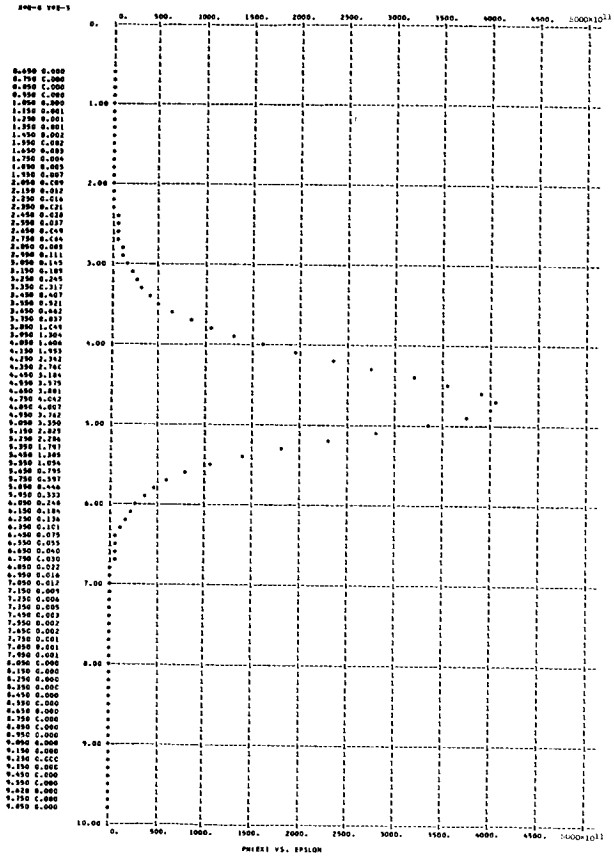
NEM = 0.46731979E 22 NEE = 0.14114346E 16 VXAV = 0.43966719E 08 KEXAV = 0.65260880E 00 KEXFL = 0.37633334E 08

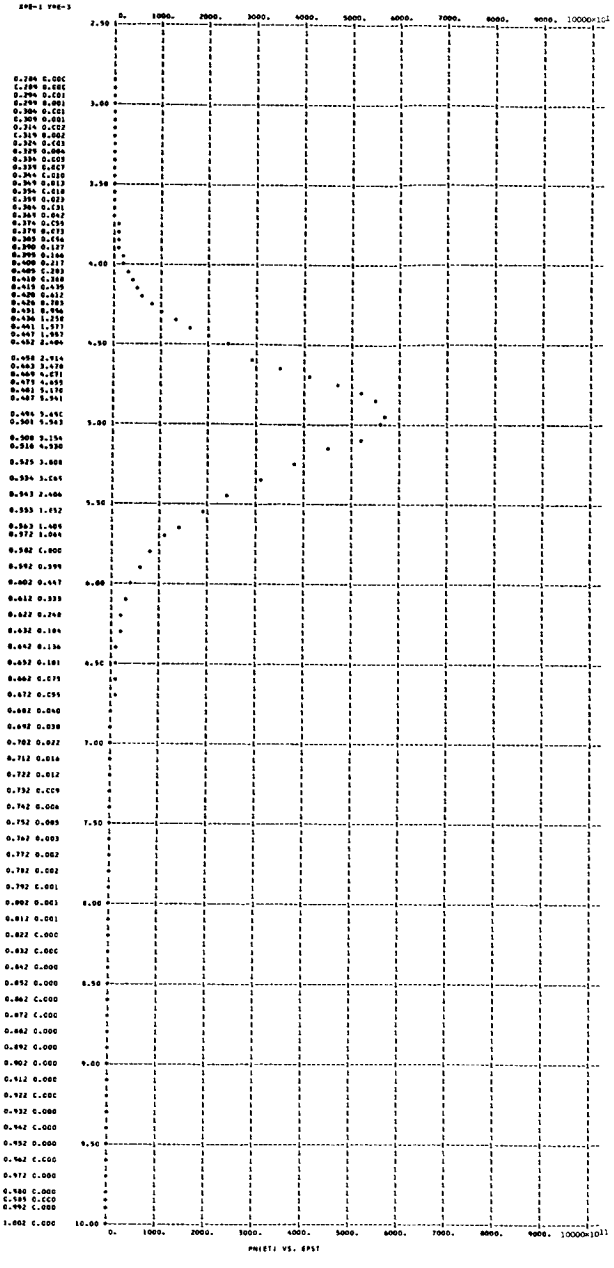
J = 0.99414OE 04 KETAV= 0.980189E 00 KETFL= 0.497331E 08 TZERO = 0.758314E 04 TD = 0.333143E 04

Figure 3. - Continued.


X=E-0 Y=E-3
0.050 3.070
0.150 3.780
0.250 4.588
0.350 5.470
0.450 6.381
0.550 7.265
0.650 7.951
0.750 8.369
0.850 8.383
0.950 7.952
1.050 7.153
1.150 6.091
1.250 4.977
1.350 3.965
1.450 3.071
1.550 2.358
1.650 1.796
1.750 1.360
1.850 1.026
1.950 0.771
2.050 0.579
2.150 0.433
2.250 0.324
2.350 0.242
2.450 0.180
2.550 0.134
2.650 0.099
2.750 0.073
2.850 0.054
2.950 0.040
3.050 0.029
3.150 0.022
3.250 0.016
3.350 0.012
3.450 0.009
3.550 0.006
3.650 0.005
3.750 0.003
3.850 0.002
3.950 0.002
4.050 0.001
4.150 0.001
4.250 0.001
4.350 0.000
4.450 0.000
4.550 0.000
4.650 0.000
4.750 0.000
4.850 0.000
4.950 0.000
5.050 0.000
5.150 0.000
5.250 0.000
5.350 0.000
5.450 0.000
5.550 0.000
0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000.
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00
J(EXI/DELE# VS. EPSLON


X=E-0 Y=E-4
0.576 0.957
0.692 0.673
0.688 0.397
0.767 0.422
0.807 1.036
0.870 1.123
0.936 1.166
1.007 1.152
1.082 1.078
1.162 0.958
1.248 0.813
1.338 0.642
1.432 0.524
1.528 0.467
1.629 0.313
1.724 0.238
1.823 0.181
1.923 0.136
2.023 0.103
2.123 0.077
2.222 0.058
2.322 0.043
2.422 0.032
2.522 0.024
2.622 0.018
2.722 0.013
2.822 0.010
2.922 0.007
3.022 0.005
3.122 0.004
3.222 0.003
3.322 0.002
3.422 0.002
3.522 0.001
3.622 0.001
3.722 0.001
3.822 0.000
3.922 0.000
4.022 0.000
4.122 0.000
4.222 0.000
4.322 0.000
4.422 0.000
4.522 0.000
4.622 0.000
4.722 0.000
4.822 0.000
4.922 0.000
5.022 0.000
5.122 0.000
5.222 0.000
5.322 0.000
5.422 0.000
5.522 0.000
5.622 0.000
5.722 0.000
0.
2000.
4000.
6000.
8000.
10000.
12000.
14000.
16000.
18000.
20000.
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00
J(ET)/DELET VS. EPST



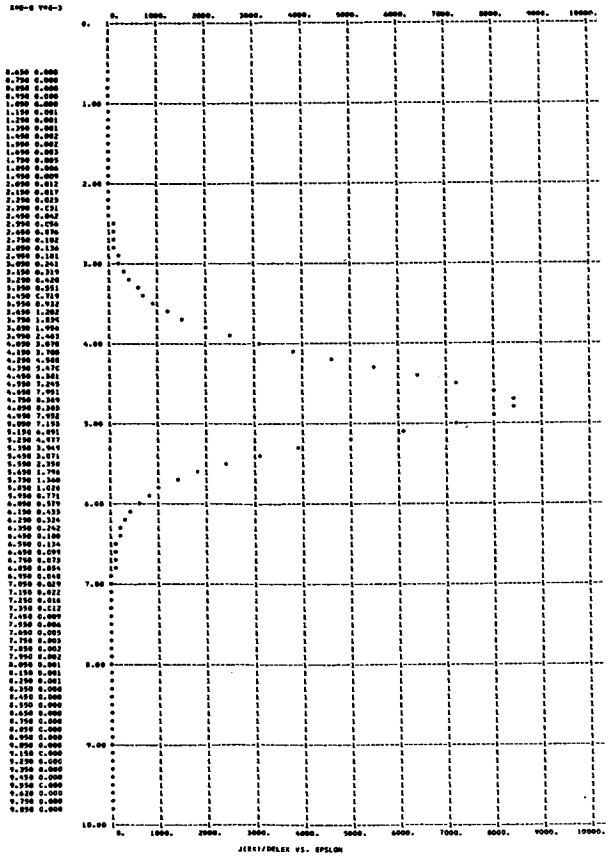


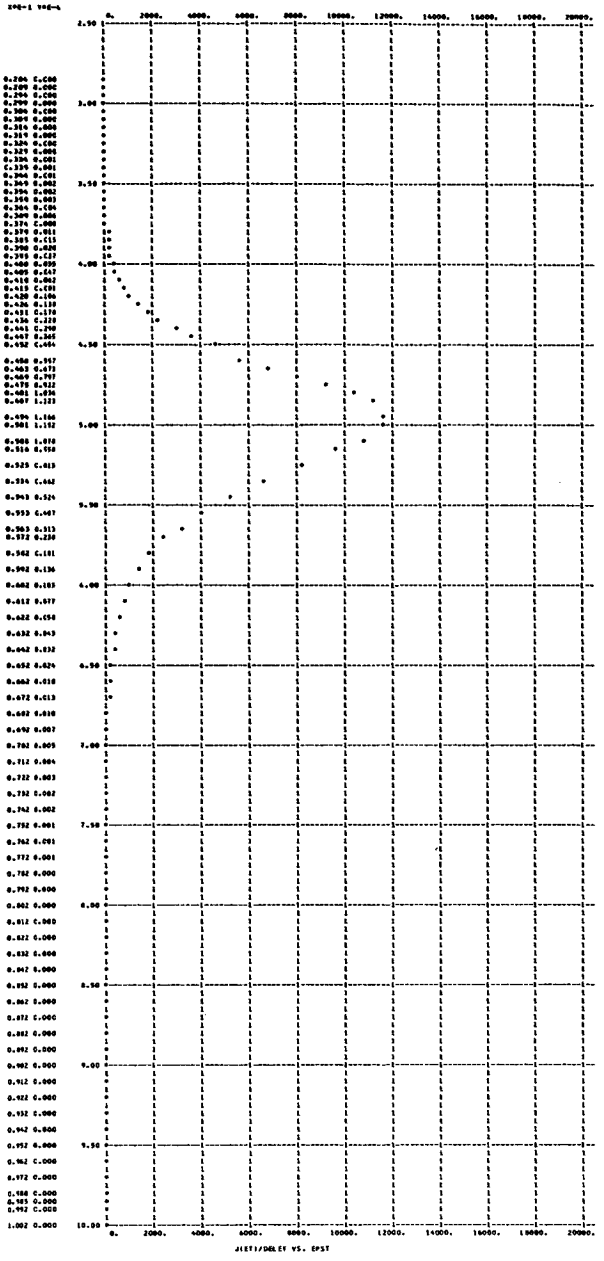
T = 0.200C00C0E 04 E = 0.10000002E 09 PHI = 8.00 AMU = 5.00 EVMAX = 9.6554

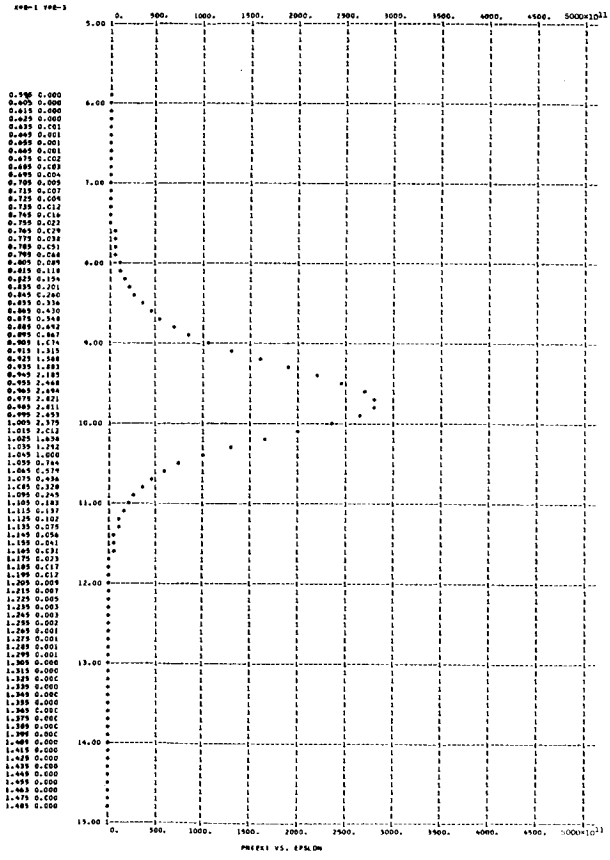
NEM = 0.50836430E 23 NEE = 0.53063539E 15 VXAV = 0.12829334E 09 KEXAV = 0.47002310E 01 KEXFL = 0.60826099E 09

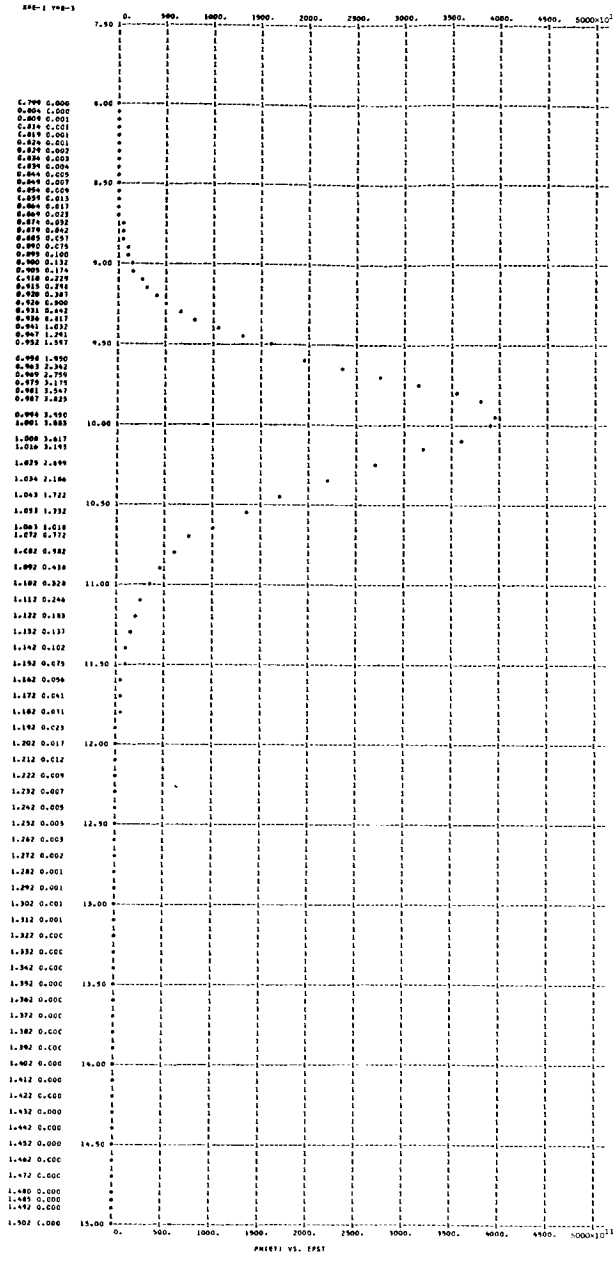
J = 0.109059E 05 KETAV= 0.502945E 01 KETFL= 0.649020E 09 TZERO = 0.389099E 05 TD = 0.270859E 04

Figure 3. - Continued.


JERK1/DELEX VS. EPSLON


JLET1/DELEY VS. EPST



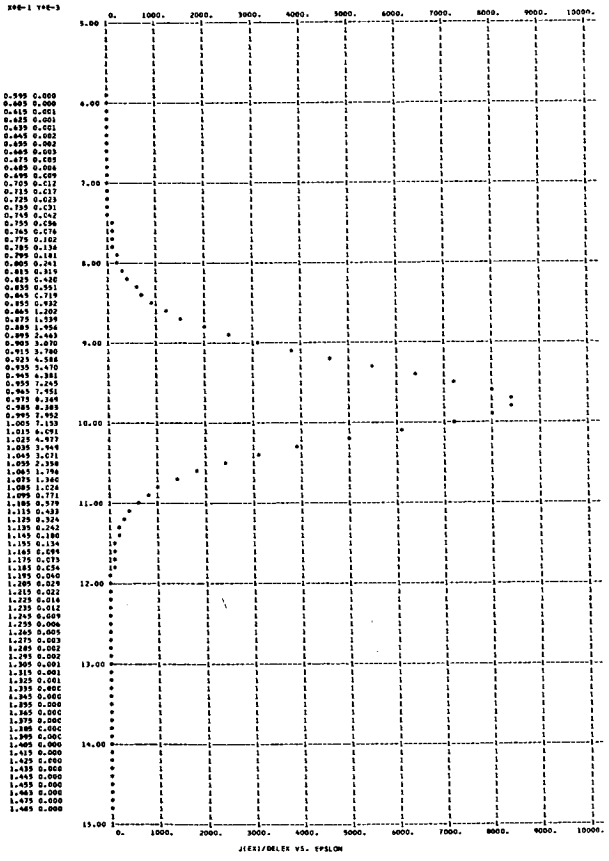


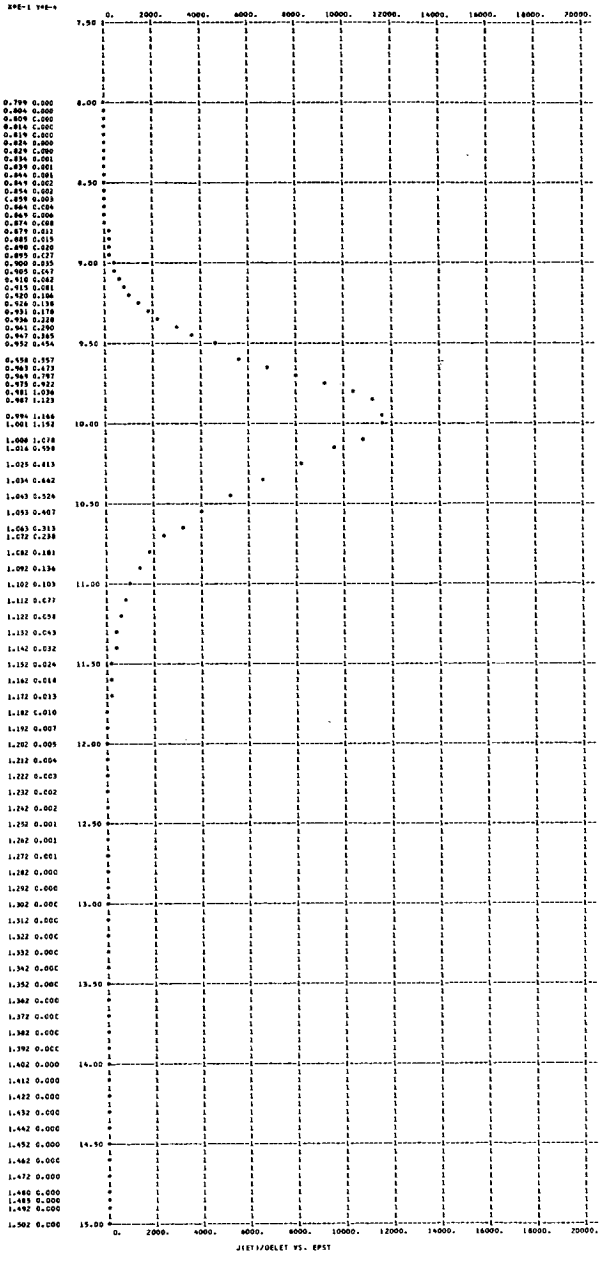
T = 0.2CC00000E 04 E = C.1C000002E 09 PHI = 8.00 AMU = 10.00 EVMAX = 14.6554

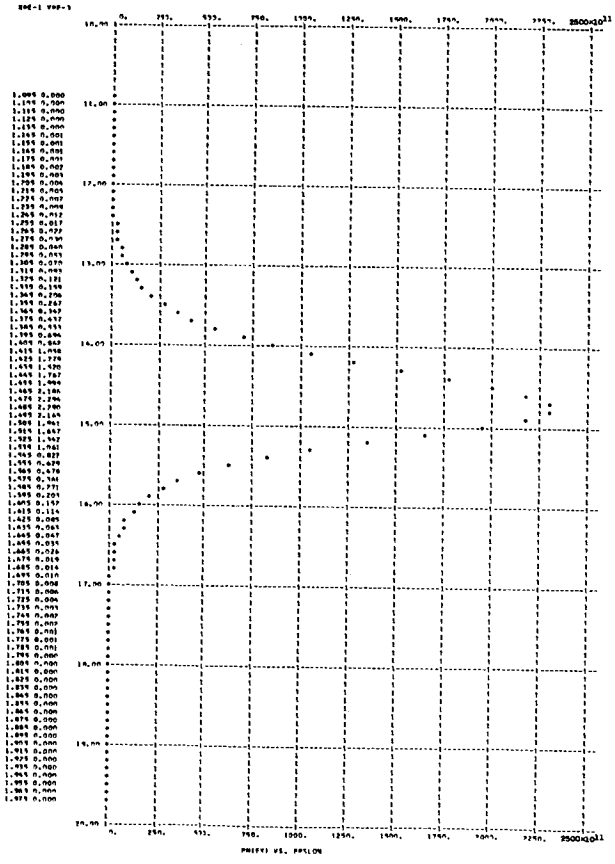
NEM = 0.143709536 24 NEE = 0.36831804E 15 VXAV = 0.18483145E 09 KEXAV = 0.97220529E 01 KEXFL = 0.18004757E 10

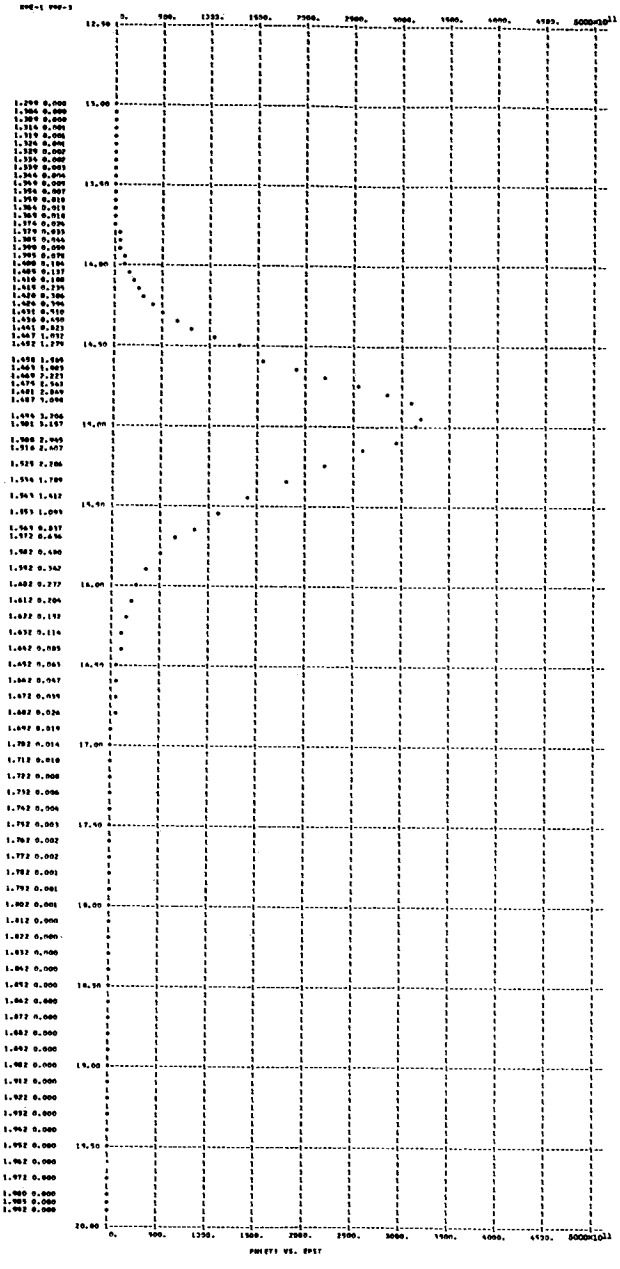
J = 0.109059E C5 KETAV= 0.100449E 02 KETFL= 0.185920E 10 TZERO = 0.777114E 05 TD = 0.257201E 04

Figure 3. - Continued.


XPE-1 YPE-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
13.00
14.00
15.00
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
J(EXI/DELEX VS. EPSLON


XPE-1 YPE-4
0. 2000. 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000. 20000.
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
0. 2000. 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000. 20000.
J(ET)/DELET VS. EPST



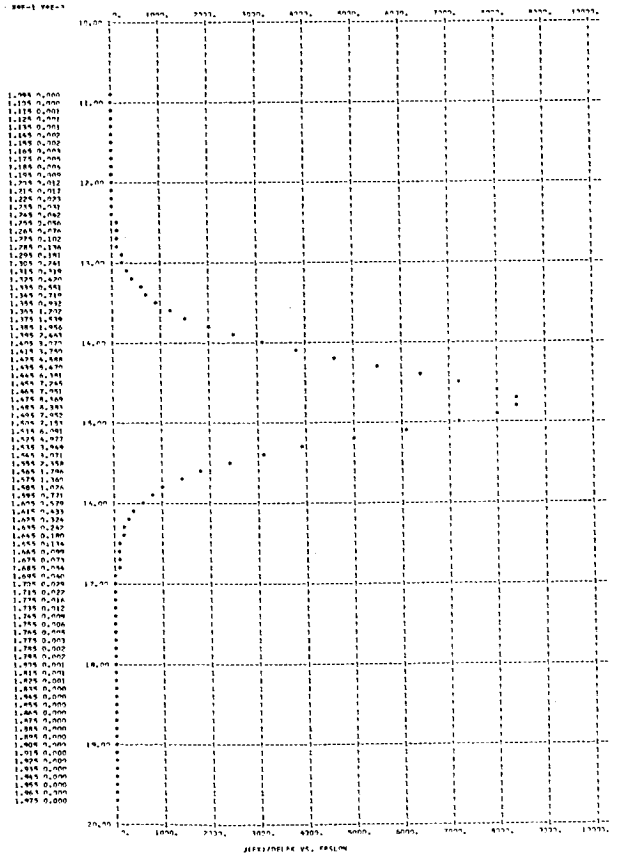


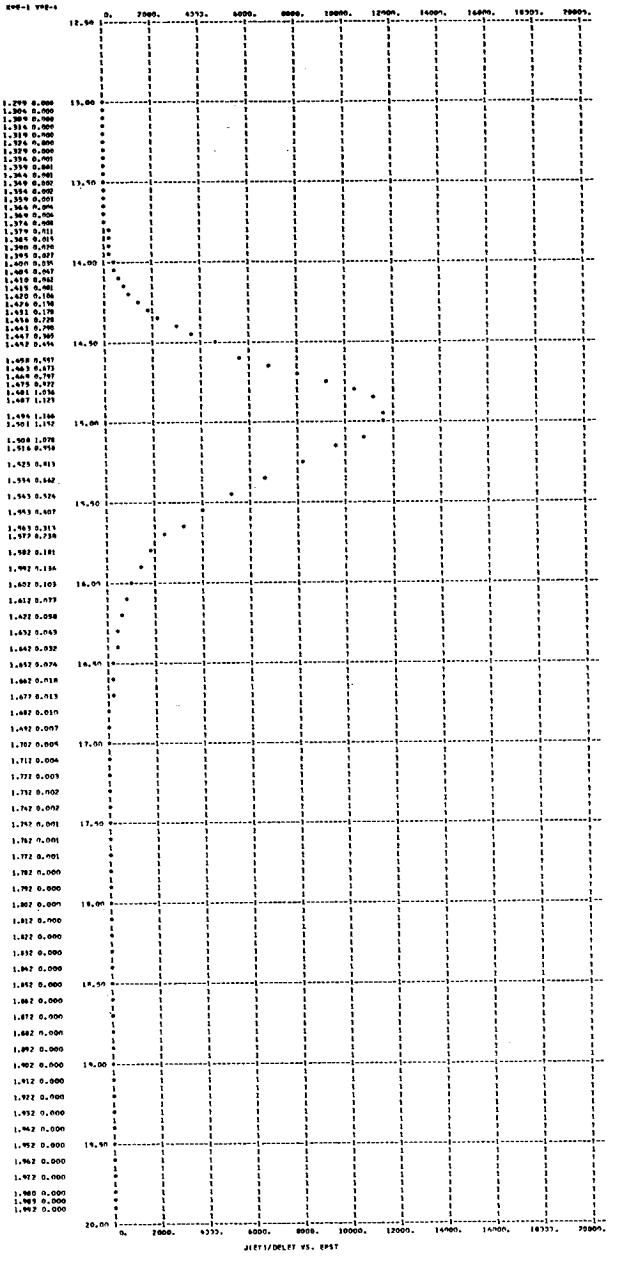
T = 0.20000000E 04 E = 0.10000002E 09 PHI = 8.00 AMU = 15.00 EVMAX = 19.6554

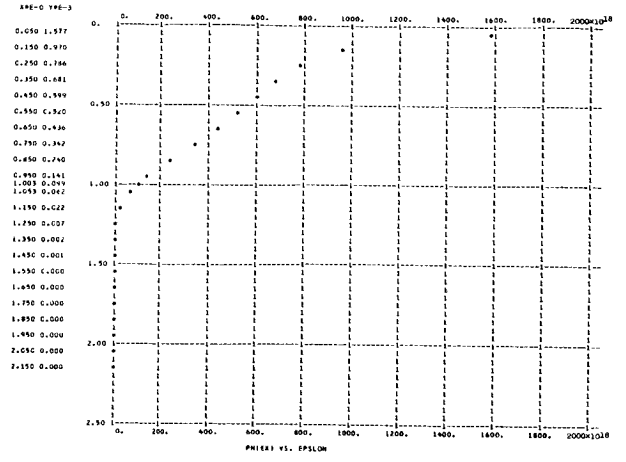
NEM = 0.26399449E 24 NEE = 0.29915421E 15 VXAV = 0.22756219E 09 KEXAV = 0.14728633E 02 KEXFL = 0.33545343E 10

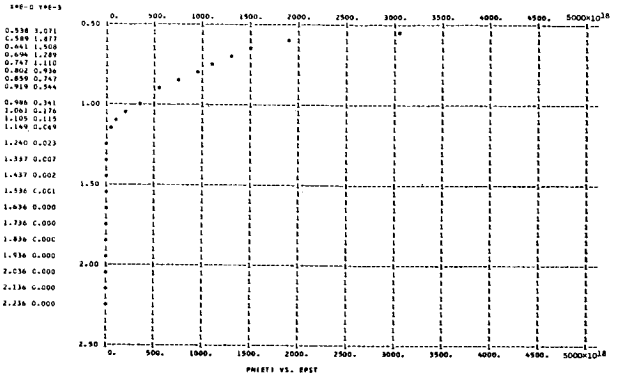
J = 0.109058E 05 KETAV= 0.150497E 02 KETFL= 0.342683E 10 TZERO = 0.116430E 06 TD = 0.253225E 04

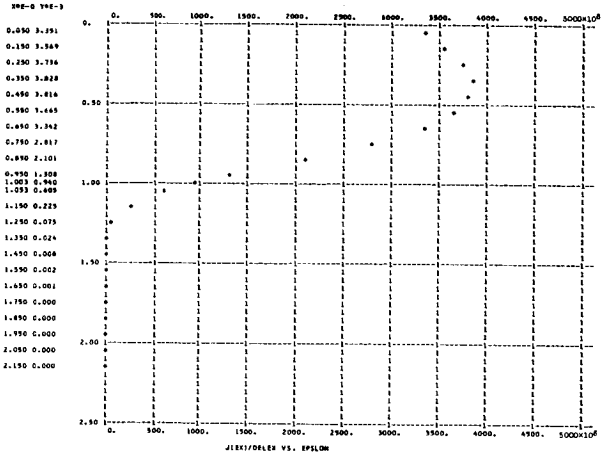
Figure 3. - Continued.

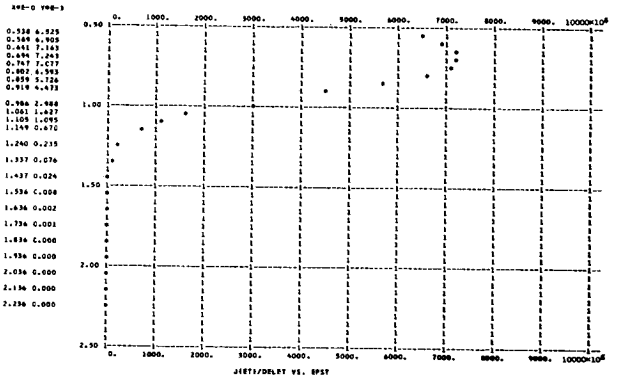










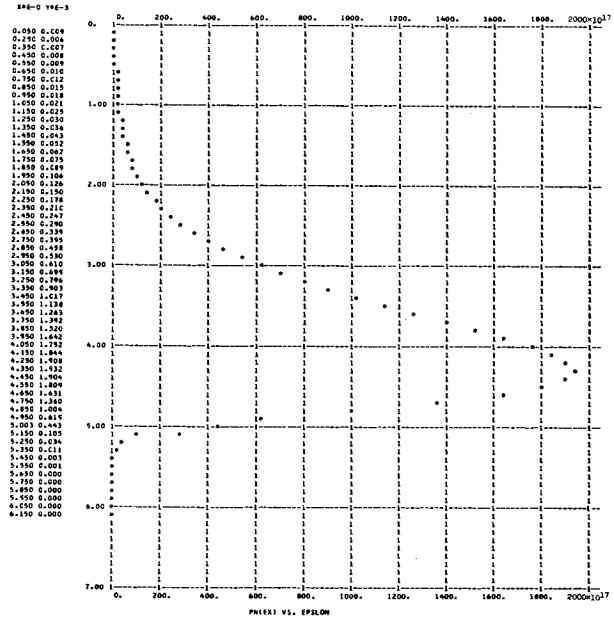


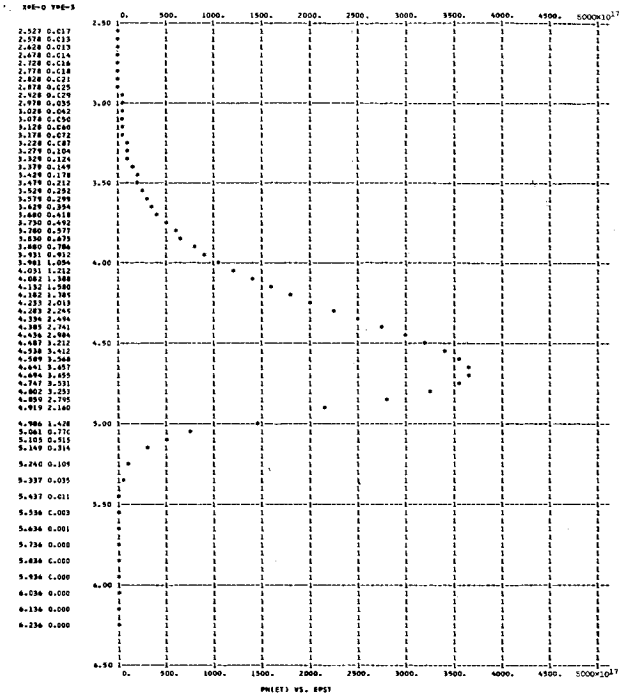
T = 1.00000000E 03 E = 0.10000002E 09 PHI = 2.00 AMU = 1.00 EVMAX = 1.0053

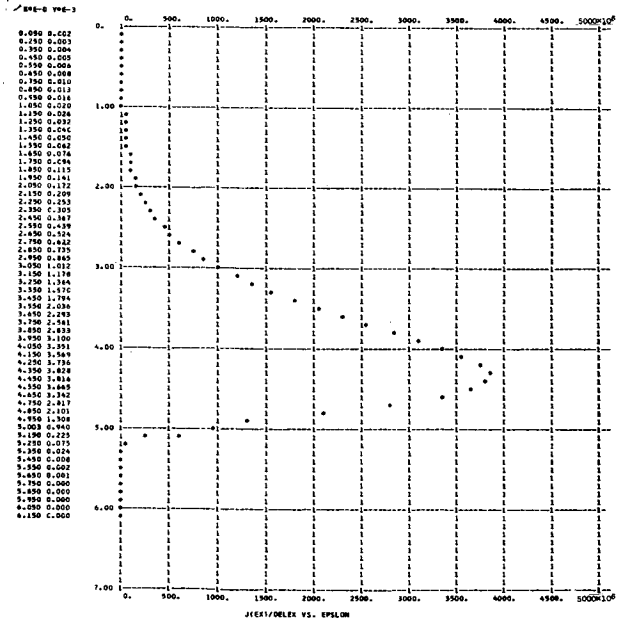
NEM = 0.45428444E 22 NEE = 0.70646936E 21 VXAV = 0.30019135E 08 KEXAV = 0.31657986E-00 KEXFL = 0.13405452E 08

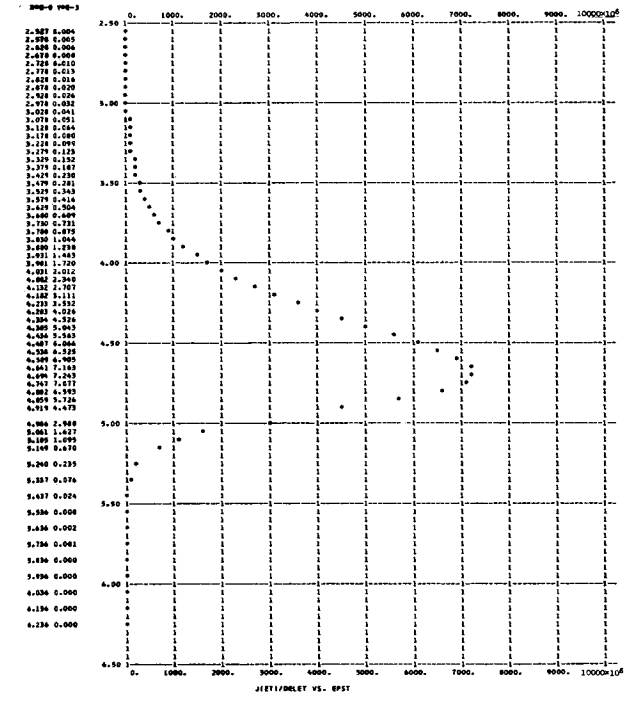
J = 0.339746E 10 KETAV= 0.681772E 00 KETFL= 0.226342E 08 TZERO = 0.527446E 04 TD = 0.329242E 04

Figure 3. - Continued.







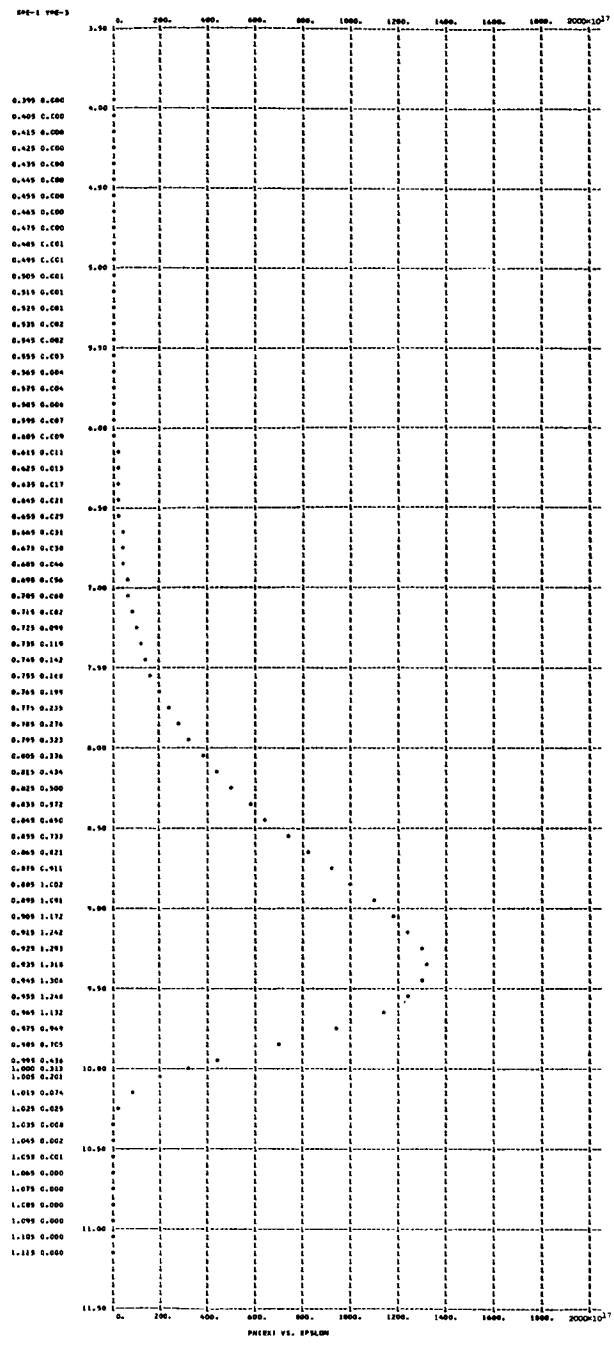


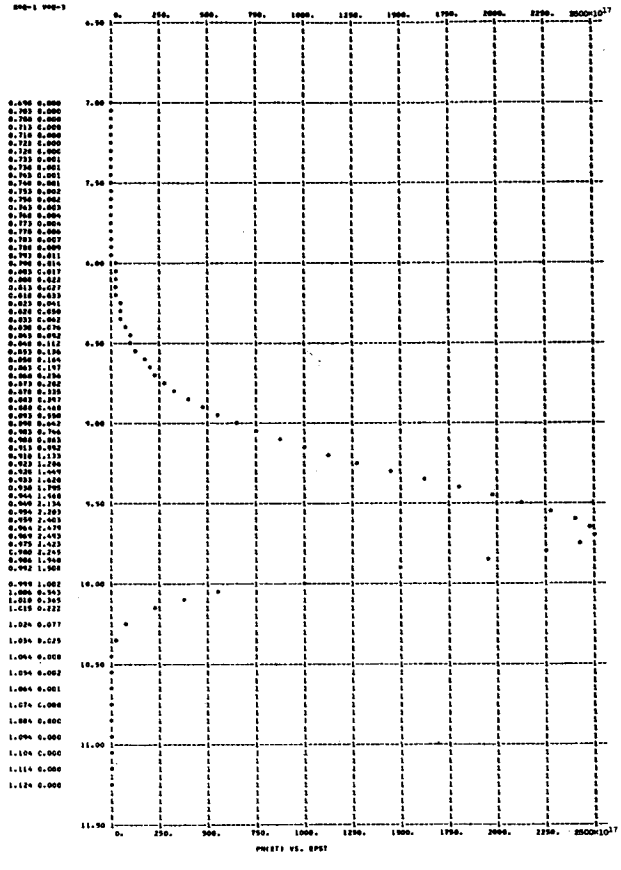
T = 1.00000000E 03 E = 0.10000002E 09 PHI = 2.00 AMU = 5.00 EVMAX = 5.0053

NEM = 0.50780533E 23 NEE = 0.30754062E 21 VXAV = 0.11660998E 09 KEXAV = 0.39091154E 01 KEXFL = 0.464951135E 09

J = 0.574514E 10 KETAV= 0.447458E 01 KETFL= 0.526494E 09 TZERO = 0.346172E 05 TD = 0.470917E 04

Figure 3. - Continued.



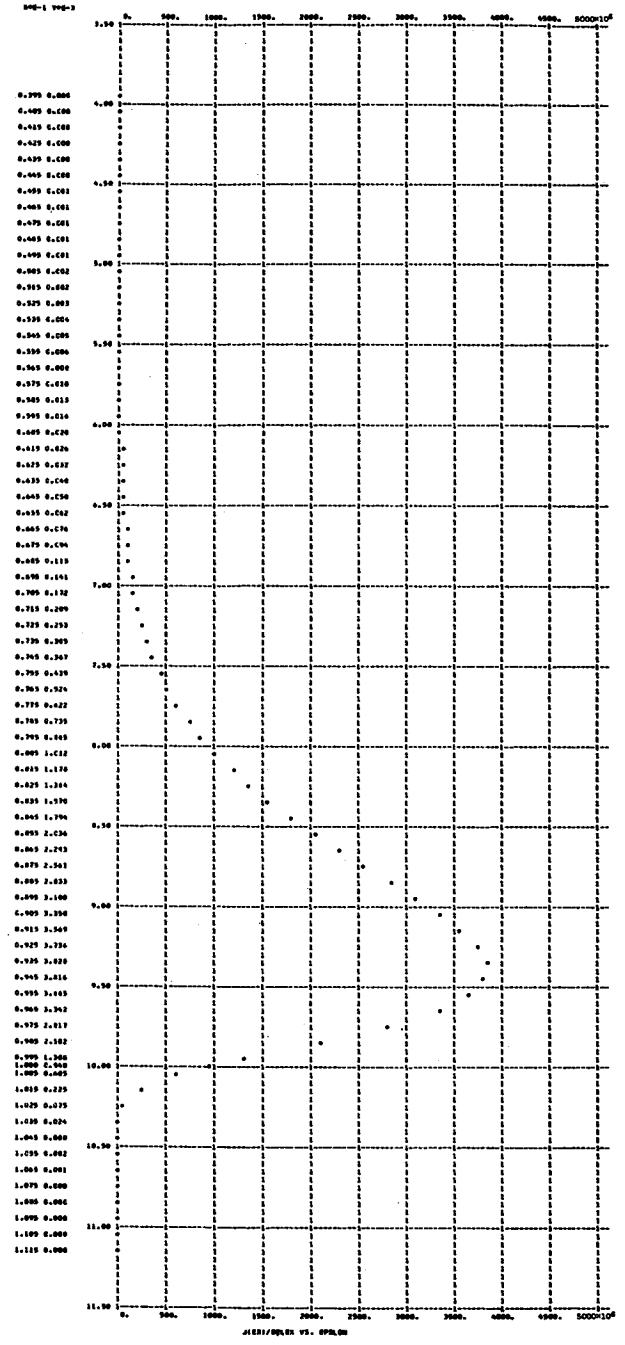


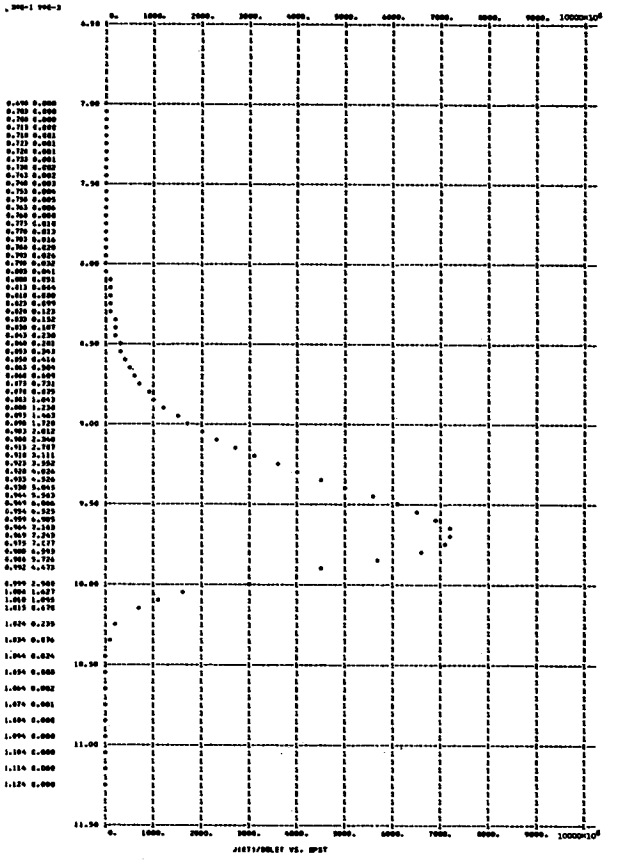
T = 1.00000000E 03 E = 0.1C000002E.09 PHI = 2.00 AMU = 10.00 EVMAX = 10.0053

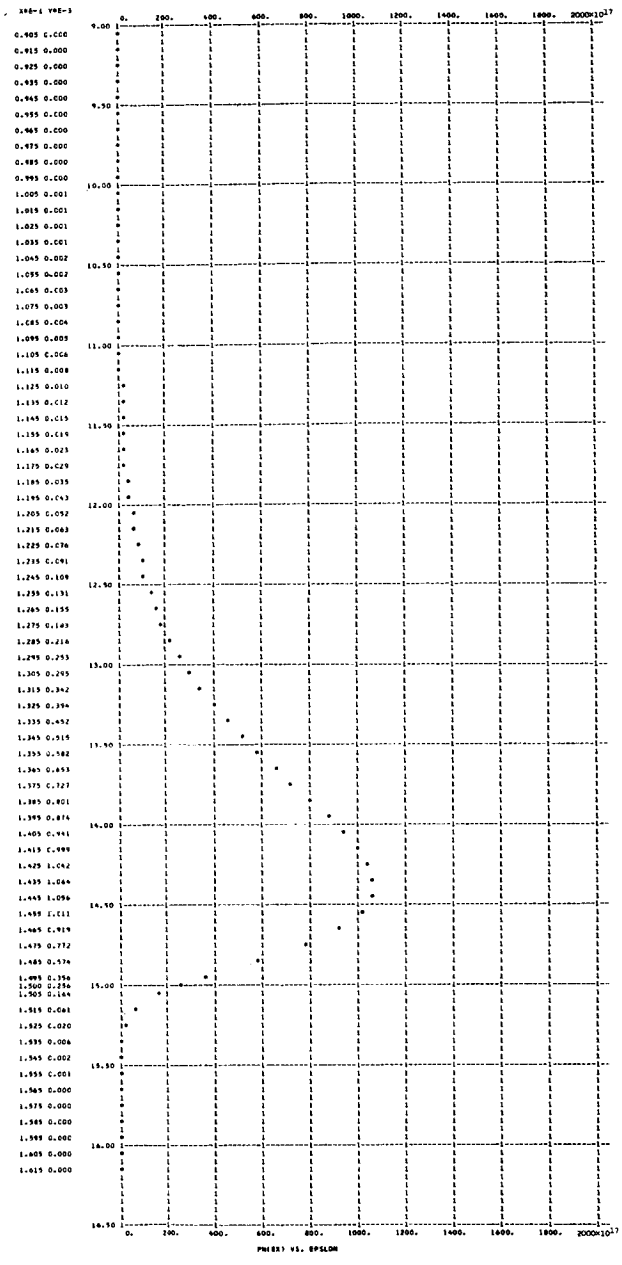
NEM = 0.14367004E 24 NEE = 0.20220900E 21 VXAV = 0.17736568E 09 KEXAV = 0.89582997E 01 KEXFL = 0.15939561E 10

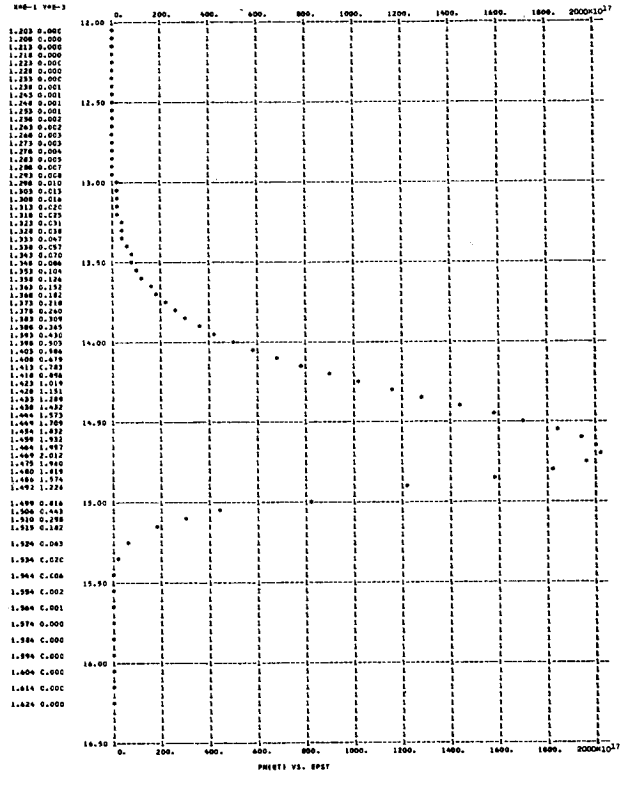
J = 0.574556E 10 KETAV= 0.949995E 01 KETFL= 0.168760E 10 TZERO = 0.734955E 05 TD = 0.430359E 04

Figure 3. - Continued.







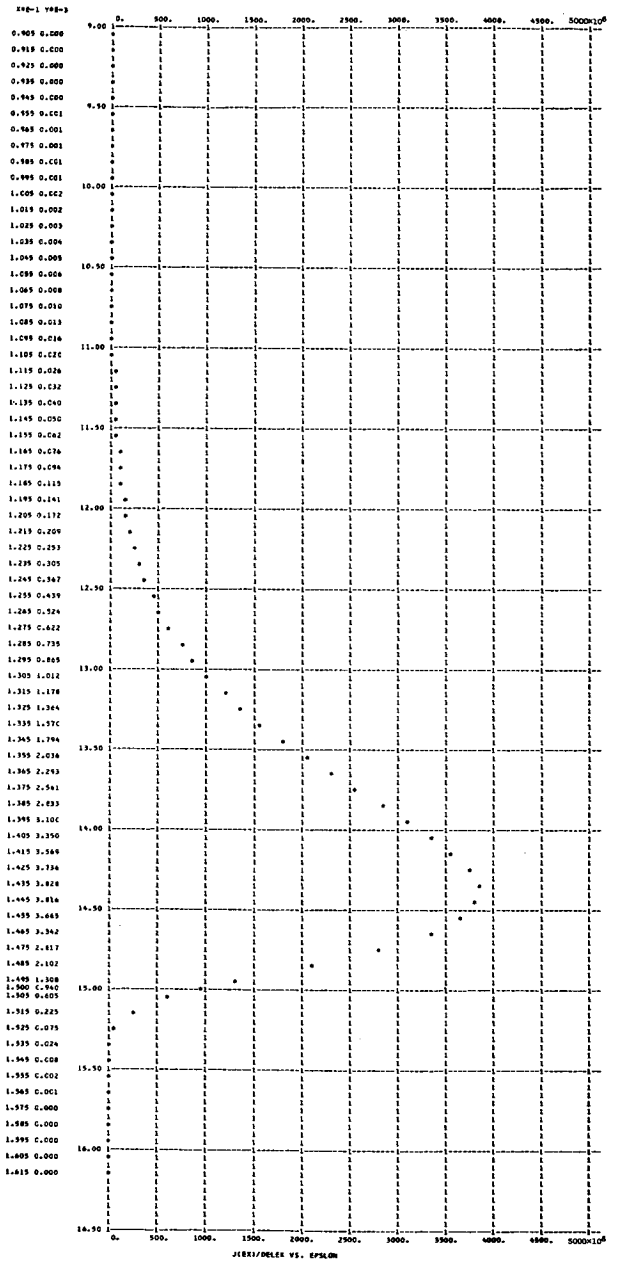


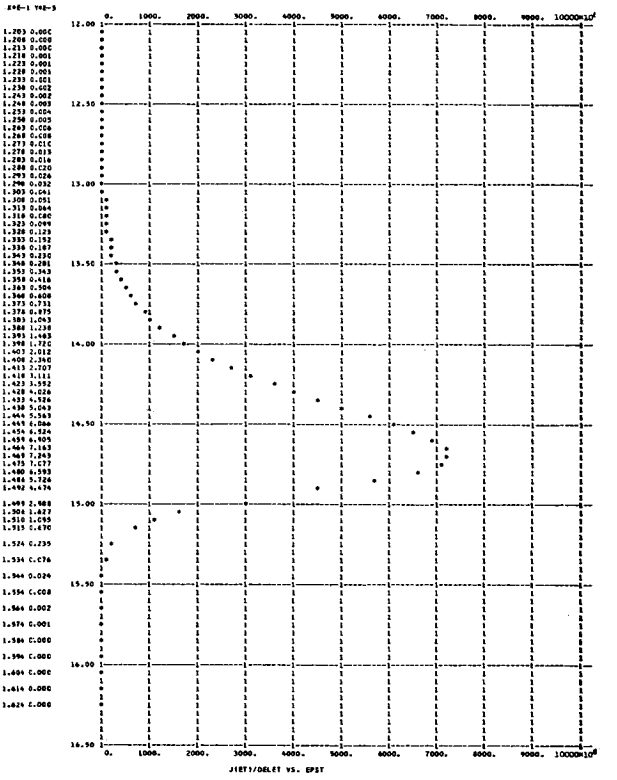
T = 1.00000000E 03 E = 0.10000002E 09 PHI = 2.00 AMU = 15.00 EVMAX = 15.0053

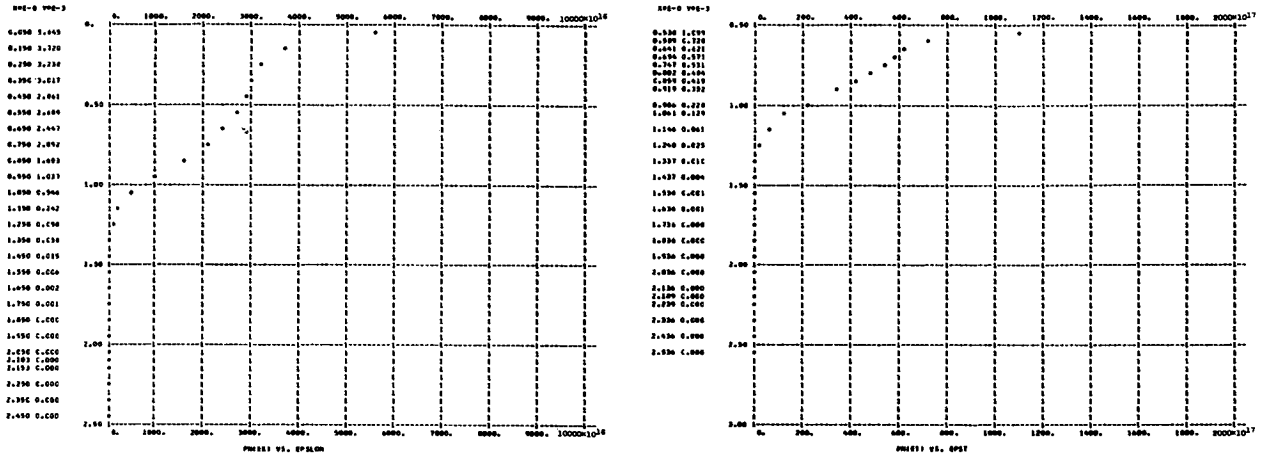
NEM = 0.26396225E 24 NEE = 0.16185047E 21 VXAV = 0.22159246E 09 KEXAV = 0.13969060E 02 KEXFL = 0.30993771E 10

J = 0.574555E 10 KETAV= 0.145055E 02 KETFL= 0.321637E 10 TZERO = 0.112221E 06 TD = 0.422018E 04

Figure 3. - Continued.


JEBRI/DELEX VS. EPSLON


JIET1/DELET VS. EPST

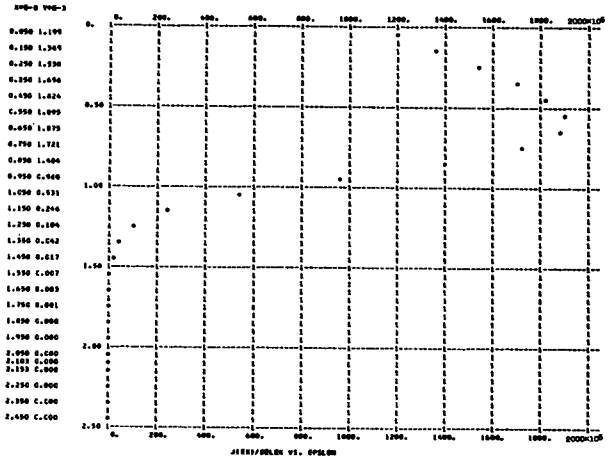


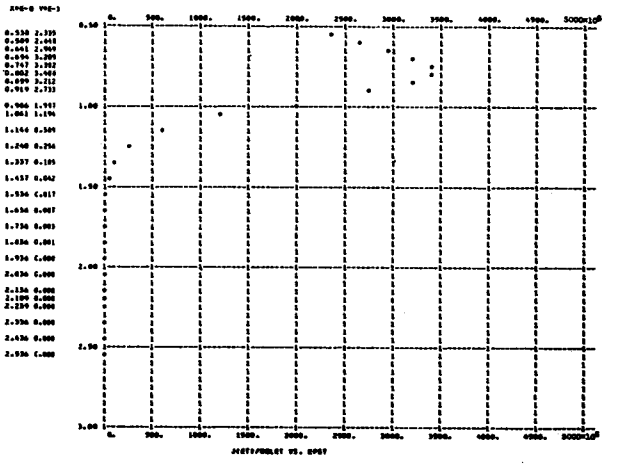
T = 1.0C000000E 03 E = 0.10000002E 09 PHI = 4.00 AMU = 1.00 EVMAX = 2.1054

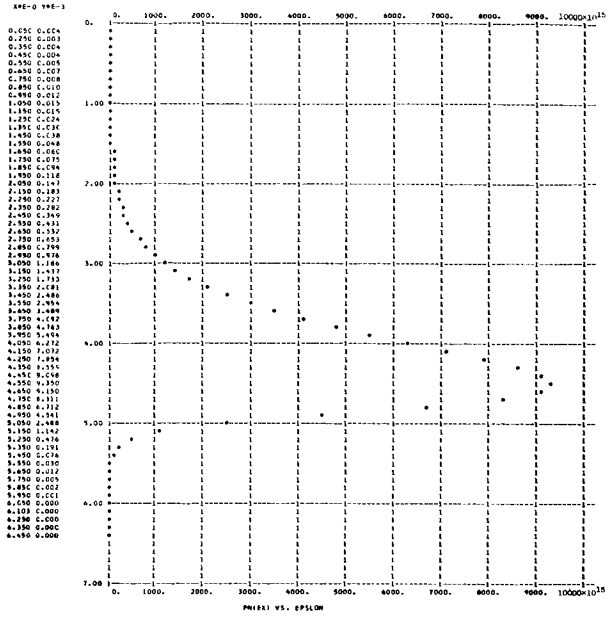
NEM = 0.454277B3E 22 NEE = 0.31723578E 20 VXAV = 0.33388977E 08 KEXAV = 0.38387867E-00 KEXFL = 0.17368212E 08

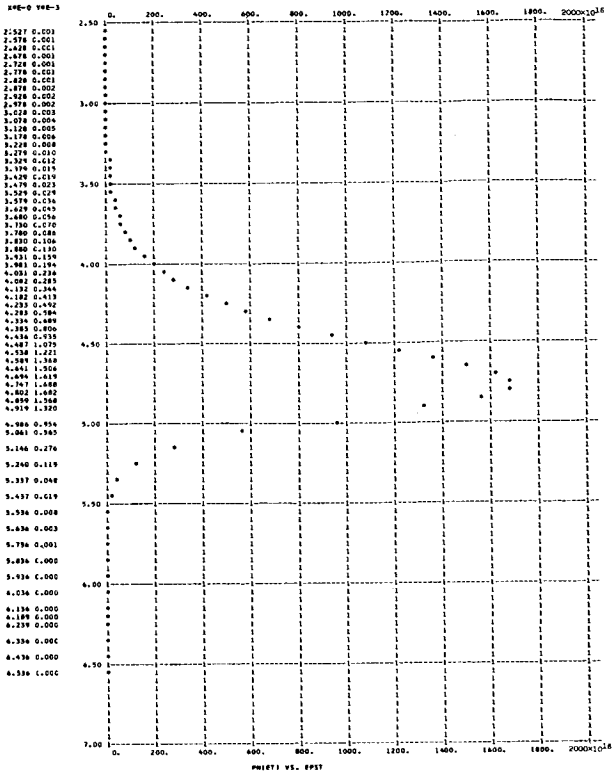
J = 0.169687E 09 KETAV= 0.720549E 00 KETFL= 0.266459E 08 TZERO = 0.557446E 04 TD = 0.312245E 04

Figure 3. - Continued.







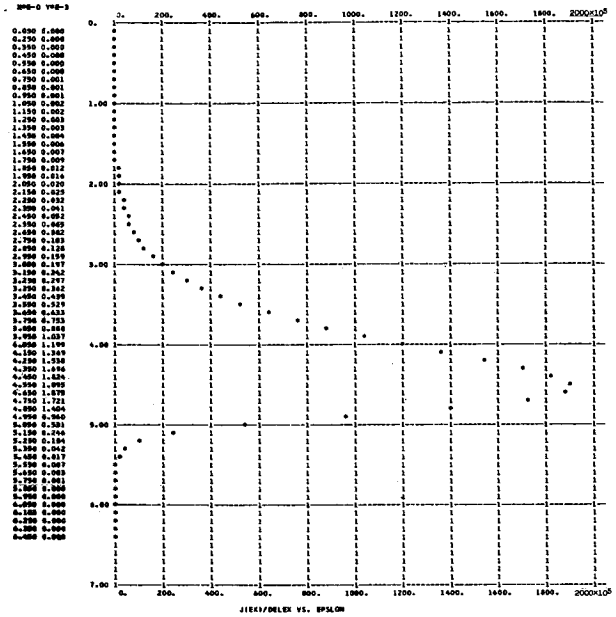


T = 1.00000000E 03 E = 0.10000002E 09 PHI = 4.00 AMU = 5.00 EVMAX = 6.1054

NEM = 0.50780506E 23 NEE = 0.11622142E 20 VXAV = 0.12130886E 09 KEXAV = 0.42086096E 01 KEXFL = 0.51618797E 09

J = 0.225861E 09 KETAV= 0.463336E 01 KETFL= 0.565077E 09 TZERO = 0.358456E 05 TD = 0.347868E 04

Figure 3. - Continued.


0.
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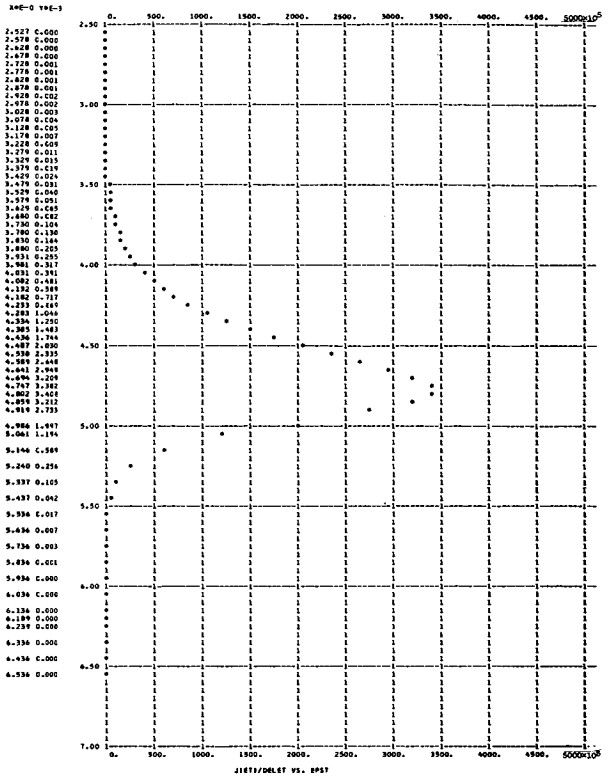
6.00
7.00
JIEXI/DELEX VS. EPSLON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3.50
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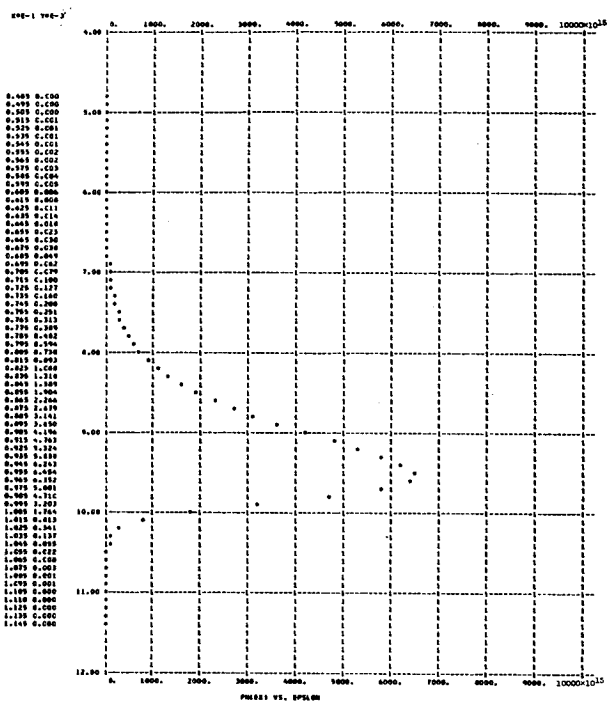
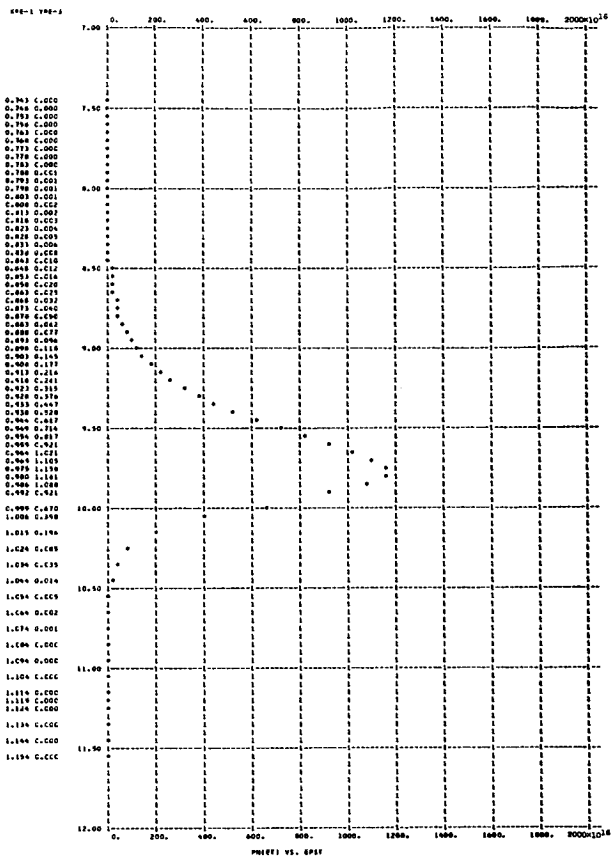
4.50
5.00
5.50
6.00
6.50
7.00
JIETI/DELET VS. EPST



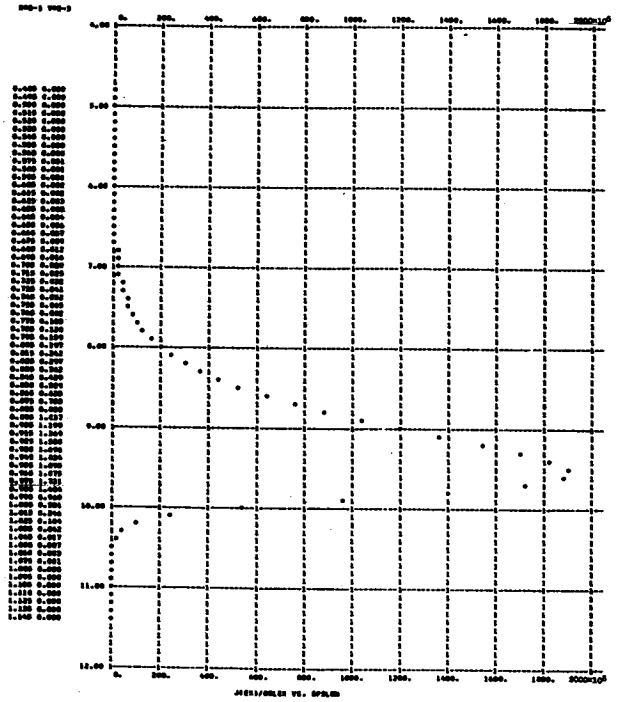


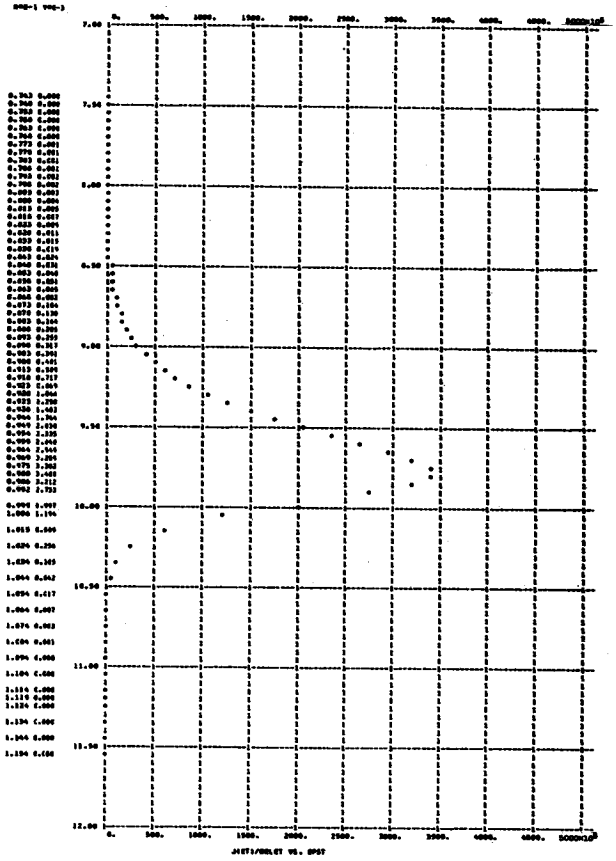
T = 1.0CC00000E 03 E = 0.1C000002E 09 PHI = 4.00 AMU = 10.00 EVMAX = 11.1054

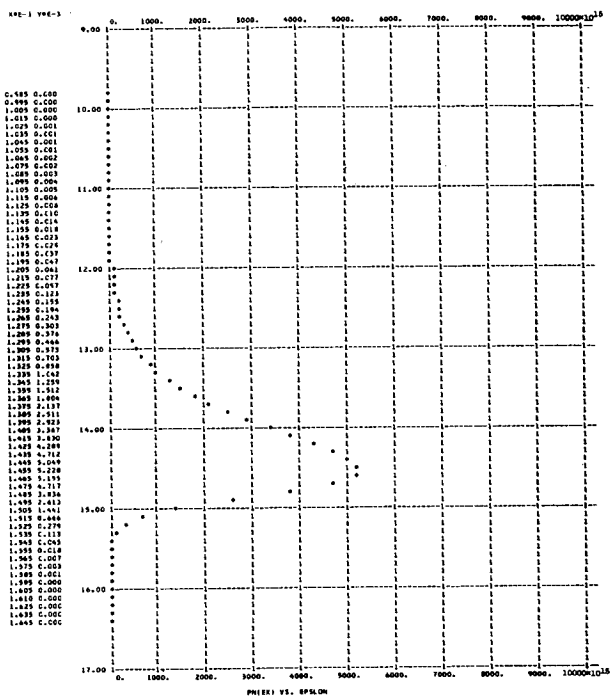
NEM = 0.14367002E 24 NEE = 0.78260753E 19 VXAV = 0.18014939E 09 KEXAV = 0.92362451E 01 KEXFL = 0.16673031E 10

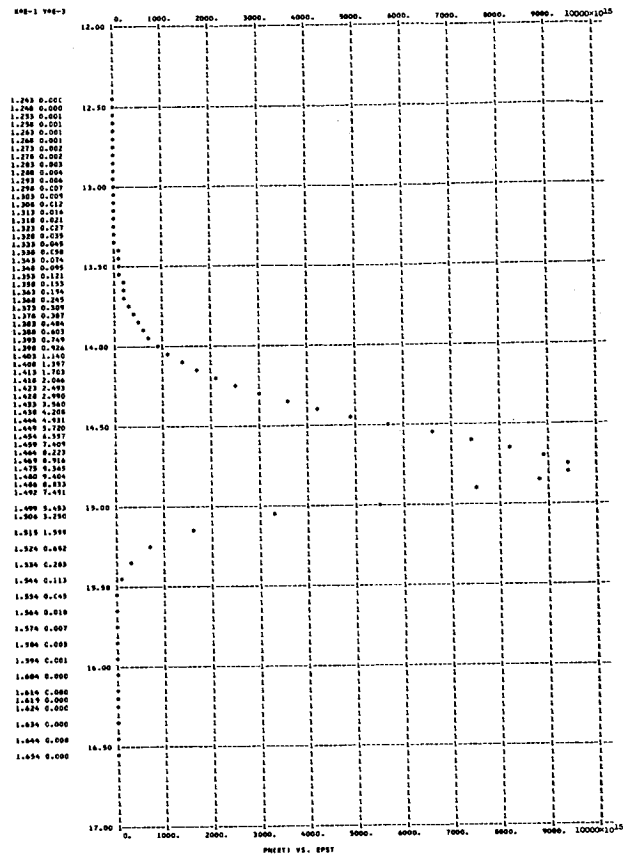
J = 0.225860E 09 KETAV= 0.964802E 01 KETFL= 0.173991E 10 TZERO = 0.746410E 05 TD = 0.326018E 04

Figure 3. - Continued.







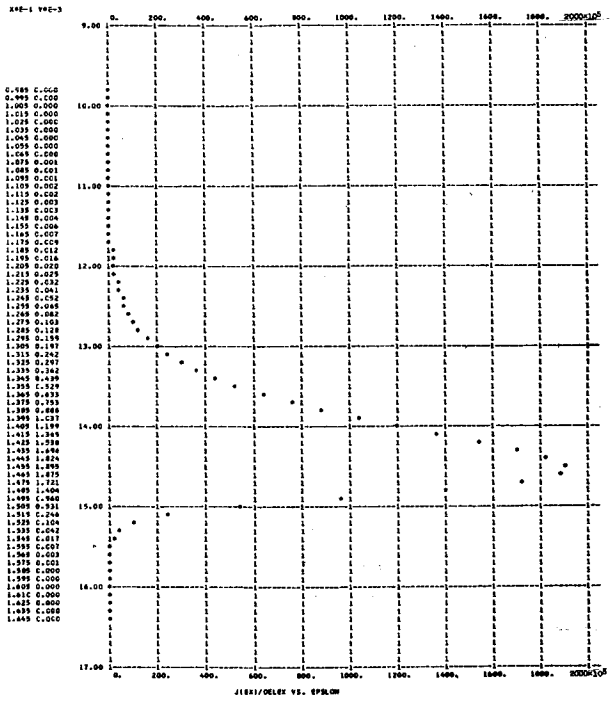


T = 1.00000000E 03 E = 0.10000002E 09 PHI = 4.00 AMU = 15.00 EVMAX = 16.1054

NEM = 0.26396224E 24 NEE = 0.63001689E 19 VXAV = 0.22378064E 09 KEXAV = 0.14243160E 02 KEXFL = 0.31900185E 10

J = 0.225859E C9 KETAV= 0.146517E 02 KETFL= 0.328021E 10 TZERO = 0.113352E 06 TD = 0.320762E 04

Figure 3. - Continued.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200.
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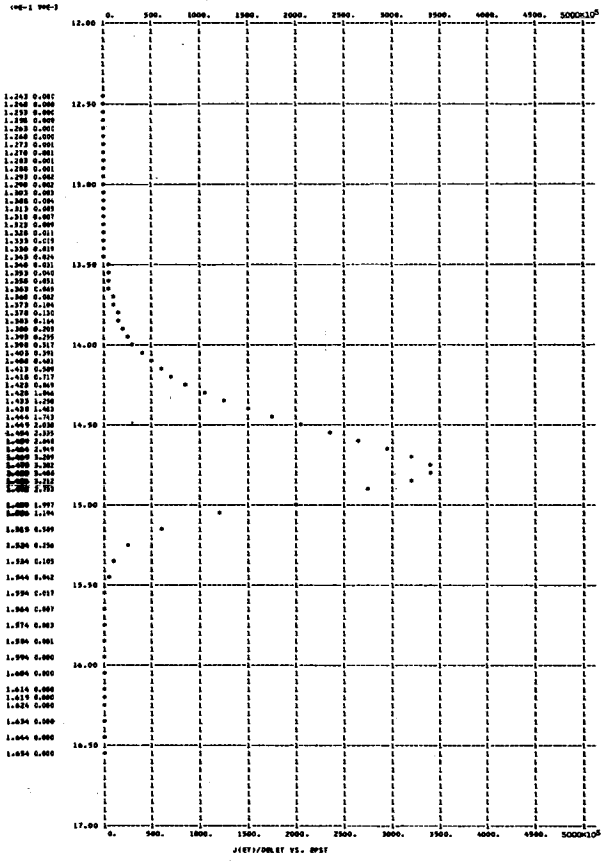
17.00
J(ISX)/DELEX VS. EPSLON


0.
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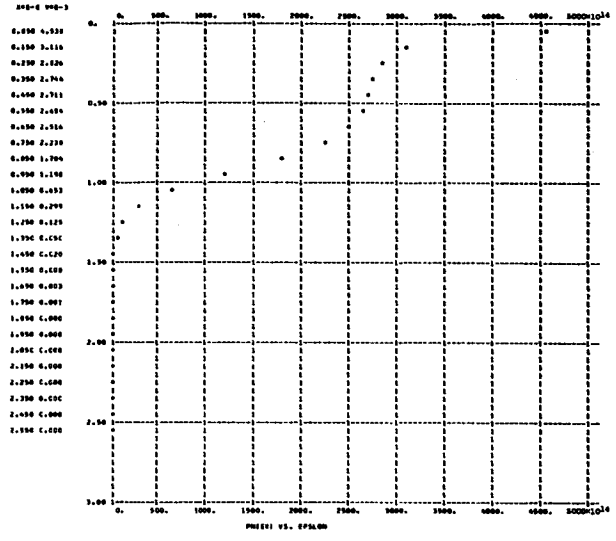
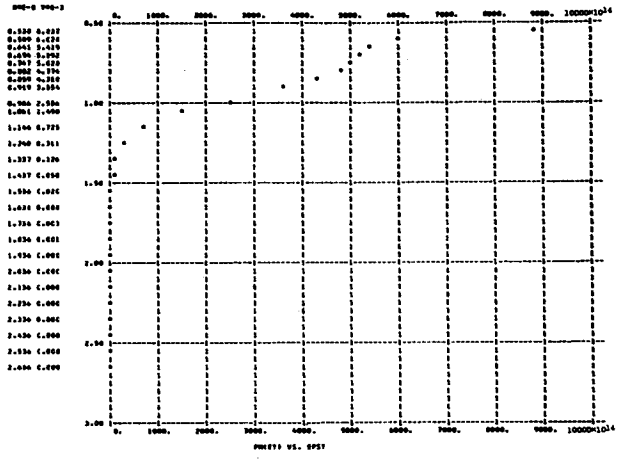
15.50
16.00
16.50
17.00
J(ET)/DELET VS. EPST



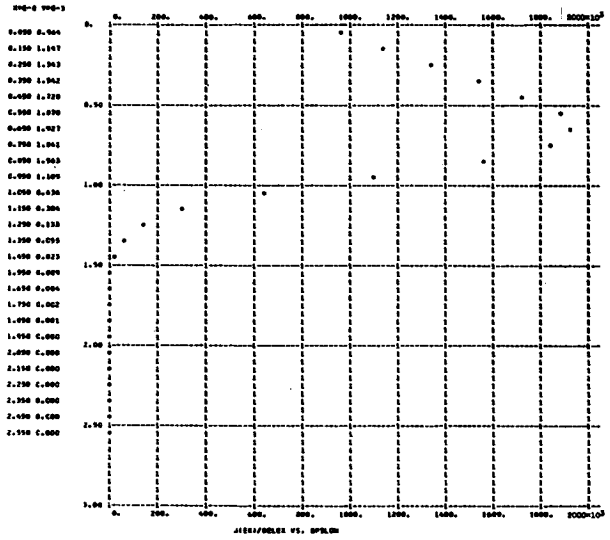


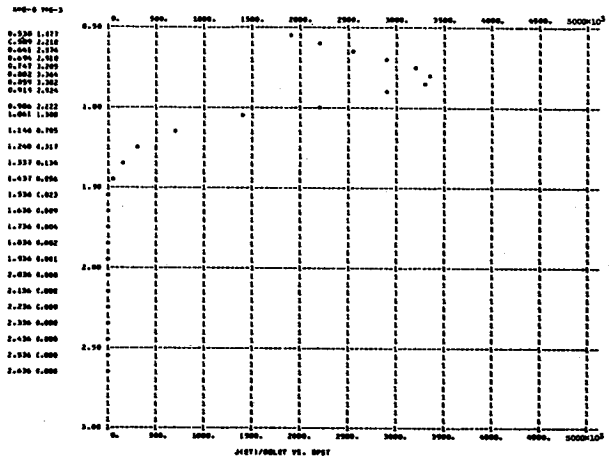
T = 1.000000000E 03 E = 0.100000002E 09 PHI = 6.00 AMU = 1.00 EVMAX = 3.8054

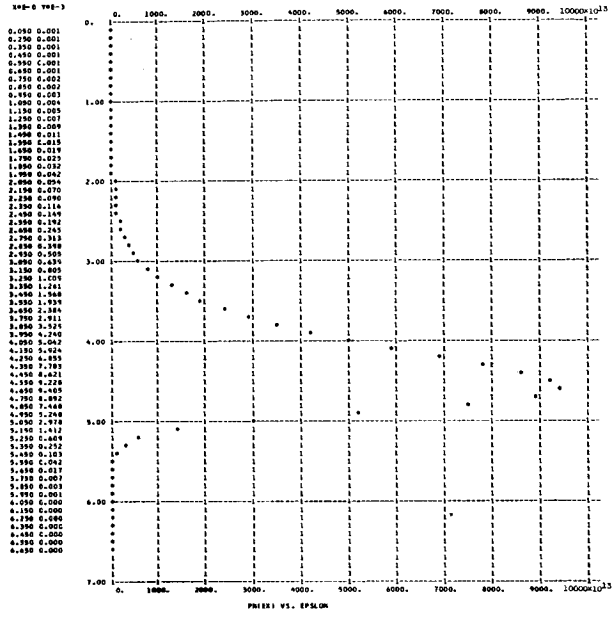
MEN = 0.454277831E 22 MEE = 0.294429691E 18 VXAV = 0.352708151E 08 KEXAV = 0.422041211E-00 KEXFL = 0.196438839E 08

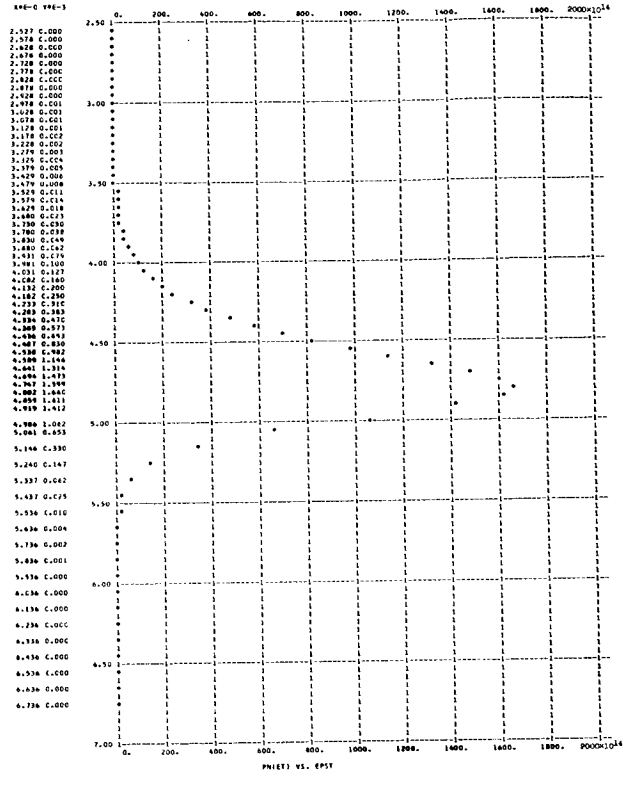
J = 0.166364E 07 KETAV= 0.742634E 00 KETFL= 0.289264E 08 TZERO = 0.574531E 04 TD = 0.300912E 04

Figure 3. - Continued.







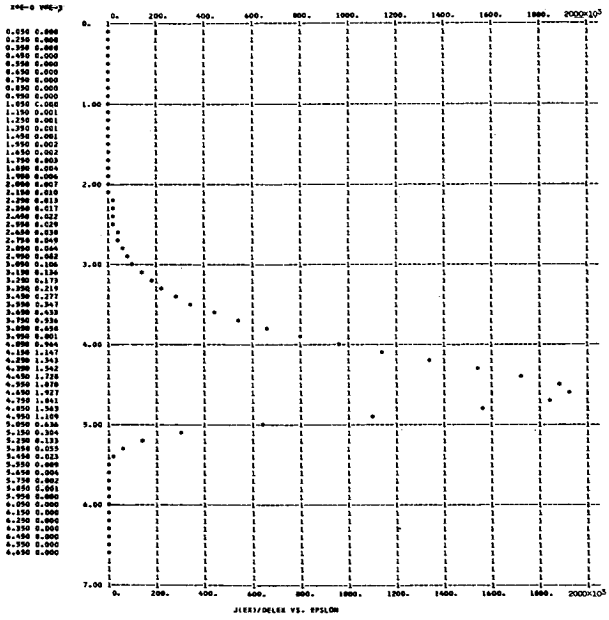


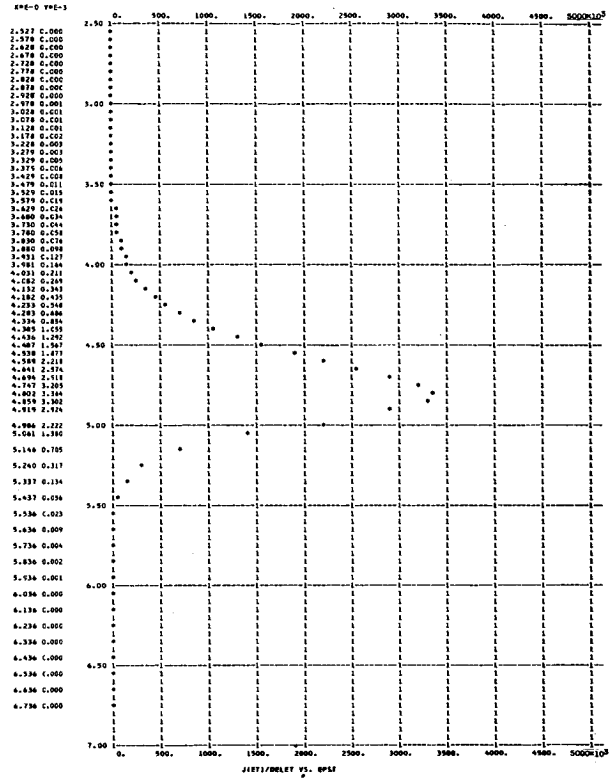
T = 1.00000000E 03 E = 0.10000002E 09 PHI = 6.00 AMU = 5.00 EVMAX = 7.8054

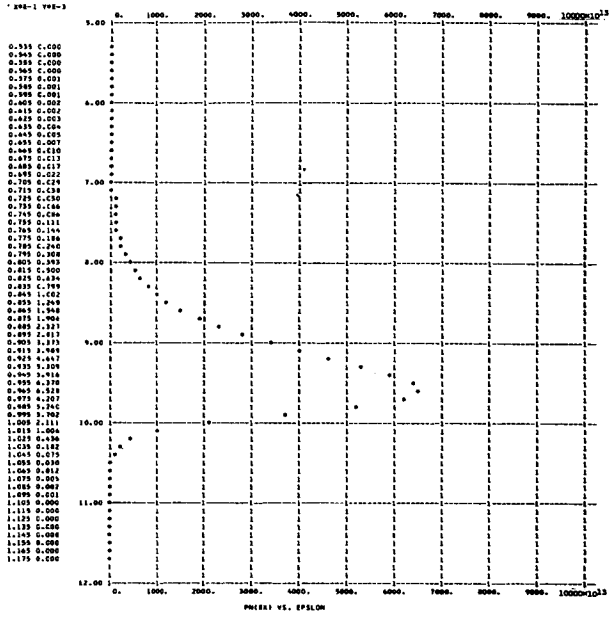
NEM = 0.50780506E 23 NEE = 0.10249303E 18 VXAV = 0.12326495E 09 KEXAV = 0.43377853E 01 KEXFL = 0.53892683E 09

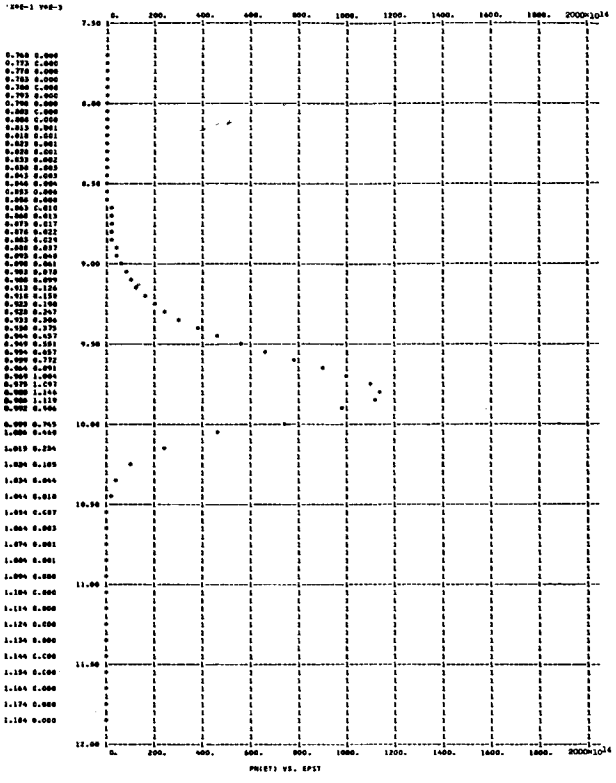
J = 0.202393E 07 KETAV= 0.470312E 01 KETFL= 0.582034E 09 TZERO = 0.363853E 05 TD = 0.296614E 04

Figure 3. - Continued.


J(EX)/DELEX VS. EPSLON


J(EY)/DELEY VS. EPSI



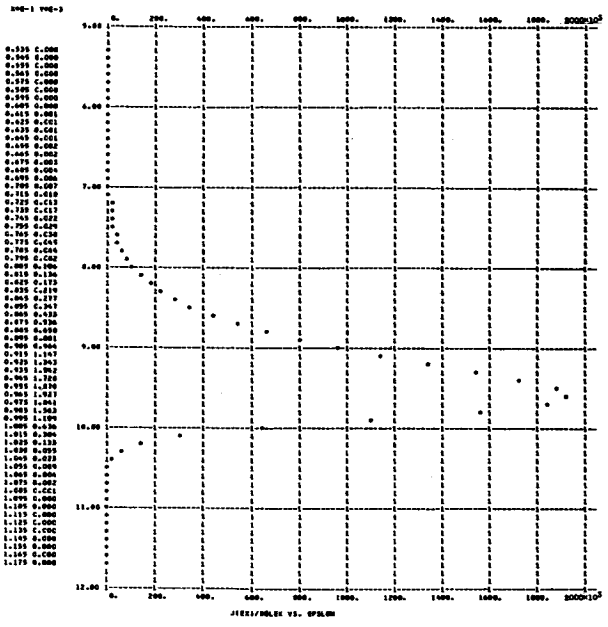


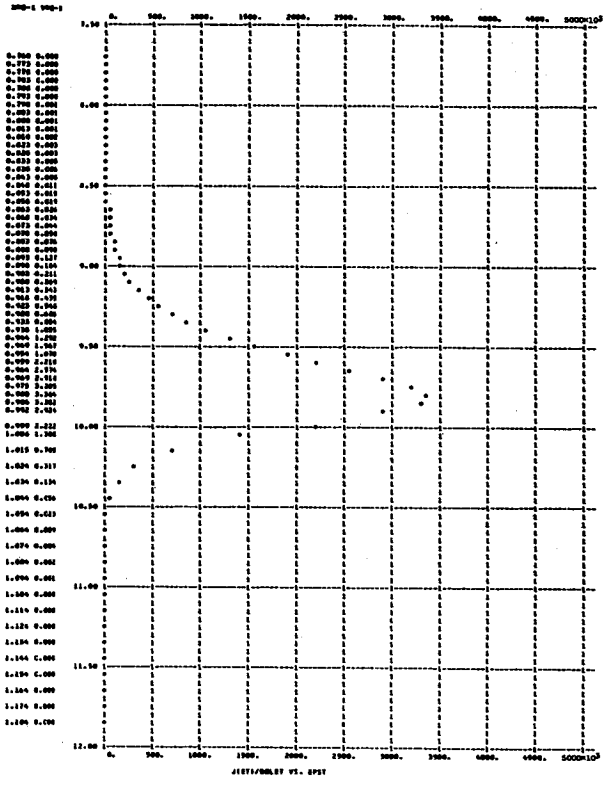
T = 1.00000000E 03 E = 0.10000002E 09 PHI = 6.00 AMU = 10.00 EVMAX = 12.8054

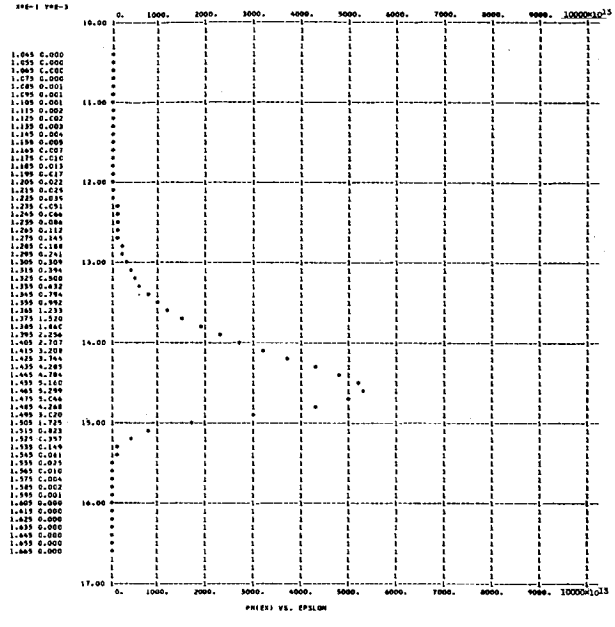
NEM = 0.14367002E 24 NEE = 0.69664014E 17 VXAV = 0.18135110E 09 KEXAV = 0.93575302E 01 KEXFL = 0.16996397E 10

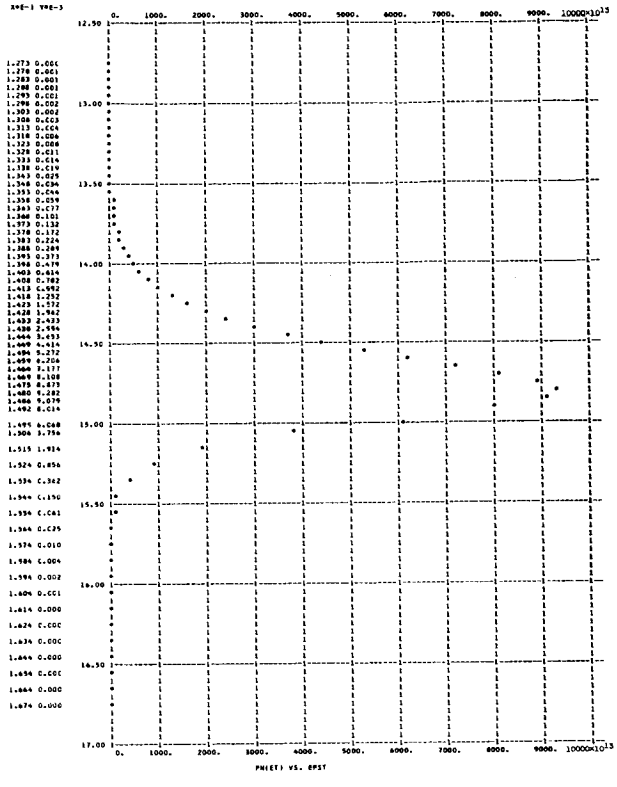
J = 0.202391E 07 KETAV= 0.971382E 01 KETFL= 0.176306E 10 TZERO = 0.751500E 05 TD = 0.281375E 04

Figure 3. - Continued.







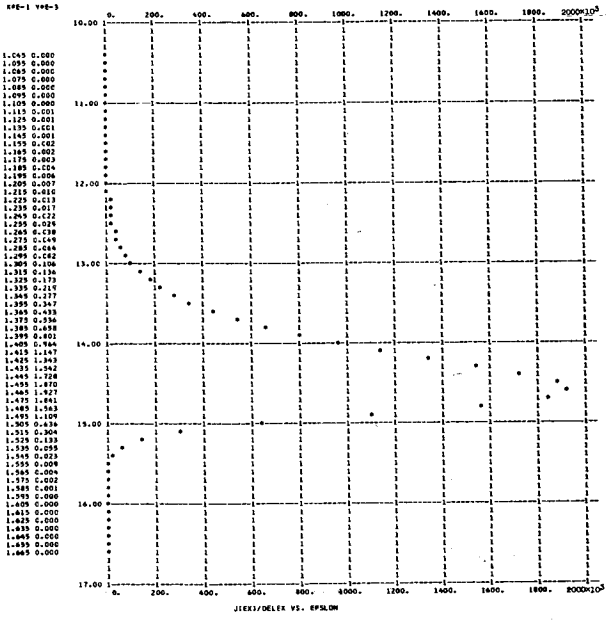


T = 1.00000000E 03 E = 0.10000002E 09 PHI = 6.00 AMU = 15.00 EVMAX = 17.8054

NEM = 0.26396224E 24 NEE = 0.56216865E 17 VXAV = 0.22472939E 09 KEXAV = 0.14362789E 02 KEXFL = 0.32298321E 10

J = 0.20239OE 07 KETAV= 0.147167E 02 KETFL= 0.330842E 10 TZERO = 0.113854E 06 TD = 0.277437E 04

Figure 3. - Continued.


XPE-1 YPE-3
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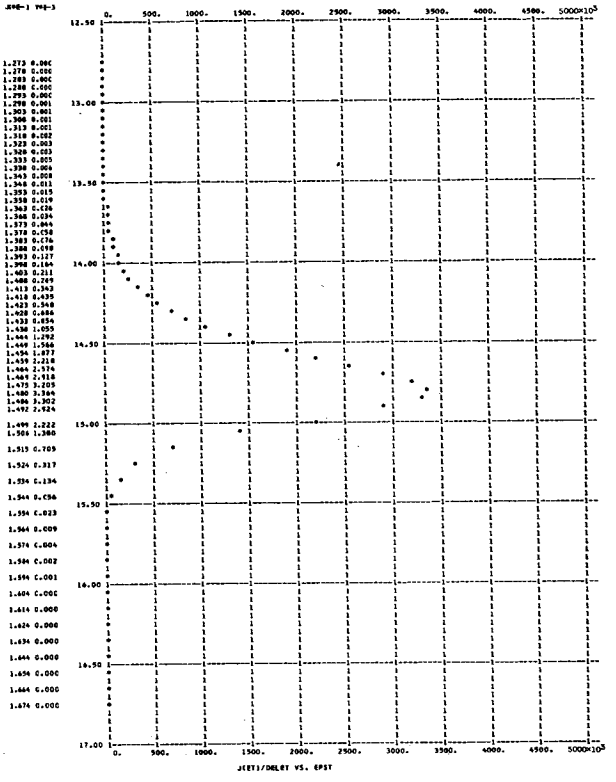
14.00
15.00
16.00
17.00
JIEX)/DELEX VS. EPSLON


JEE-1 YE-3
0.
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4500.
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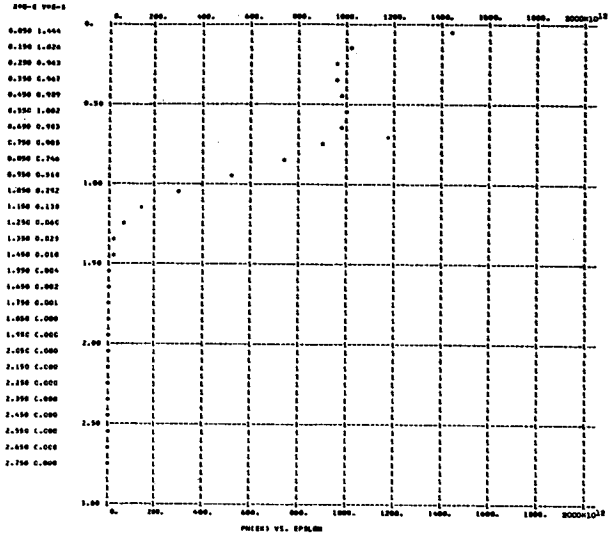
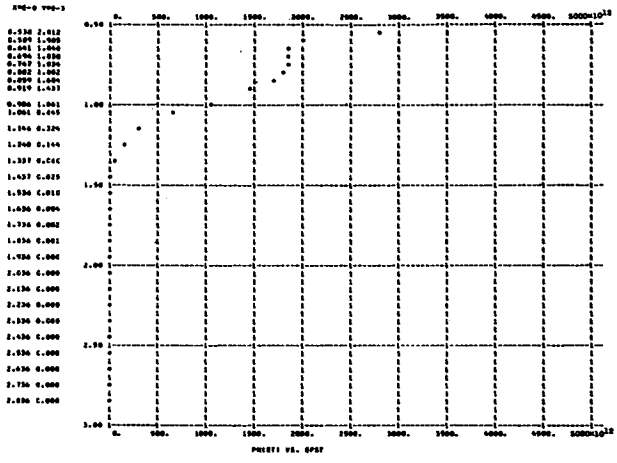
16.00
16.50
17.00
J(ET)/DELET VS. EPST



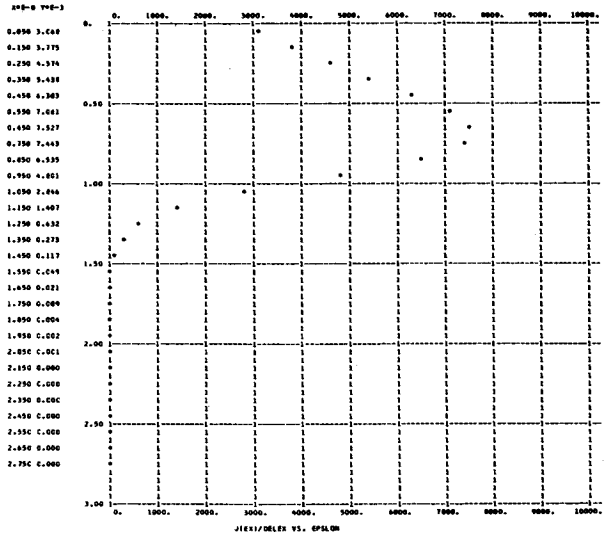


T = 1.00000000E 03 E = 0.1C000002E 09 PHI = 8.00 AMU = 1.00 EVMAX = 5.6554

NEM = 0.45427783E 22 NEE = 0.10699845E 16 VXAV = 0.36917736E 08 KEXAV = 0.45627946E-00 KEXFL = 0.21733317E 08

J = 0.632813E 04 KETAV= 0.762710E 00 KETFL= 0.309937E 08 TZERO = 0.590063E 04 TD = 0.290295E 04

Figure 3. - Continued.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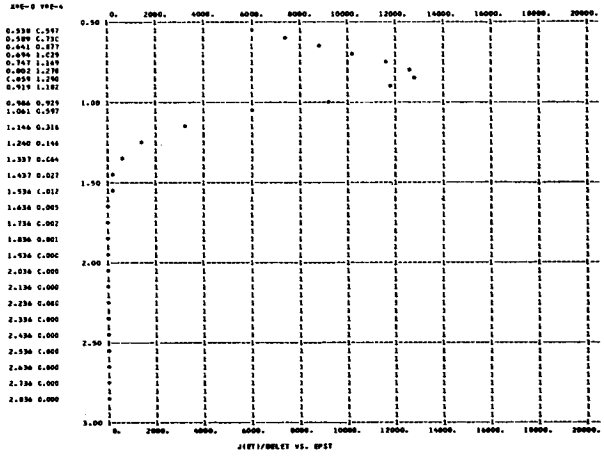
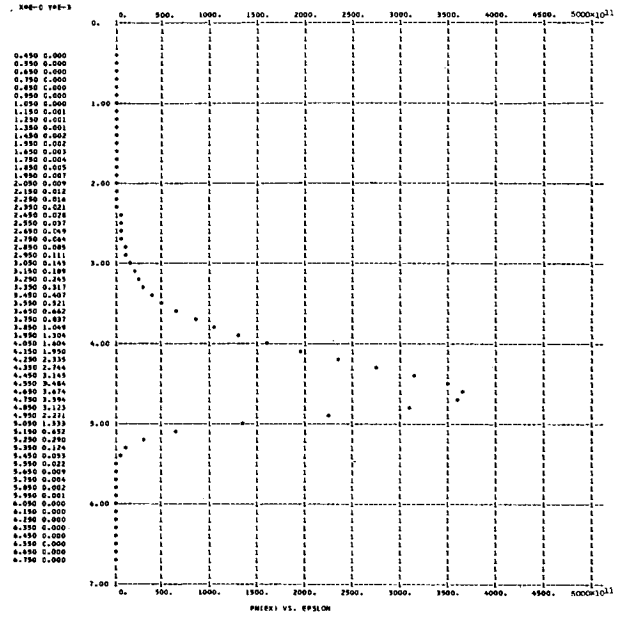
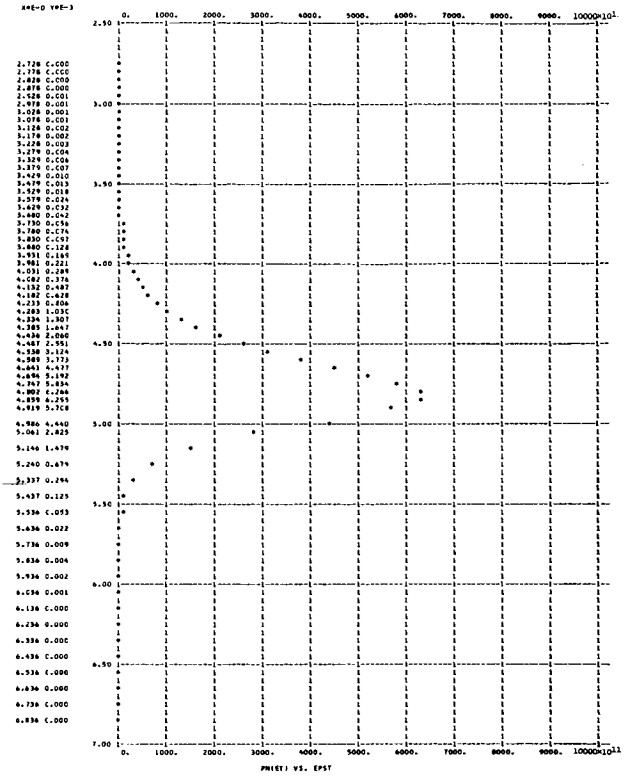
0.
0.50
1.00
1.50
2.00
2.50
3.00
JIEXI/DELEX VS. EPSLON


0. 2000. 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000. 20000.
0.50
1.00
1.50
2.00
2.50
3.00



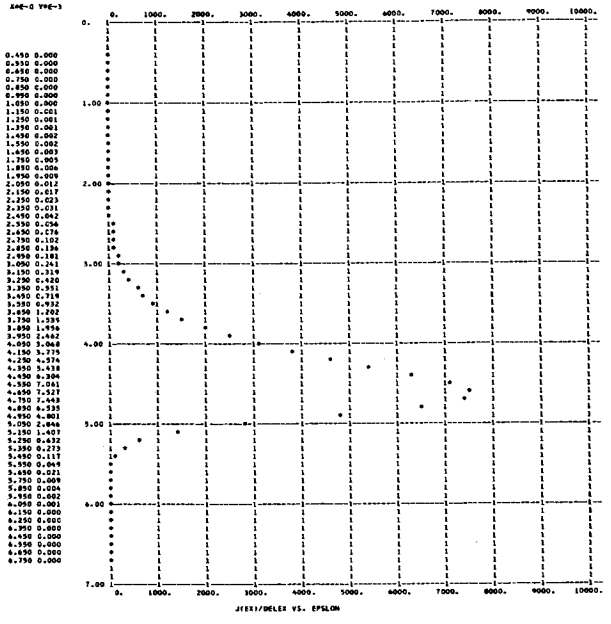


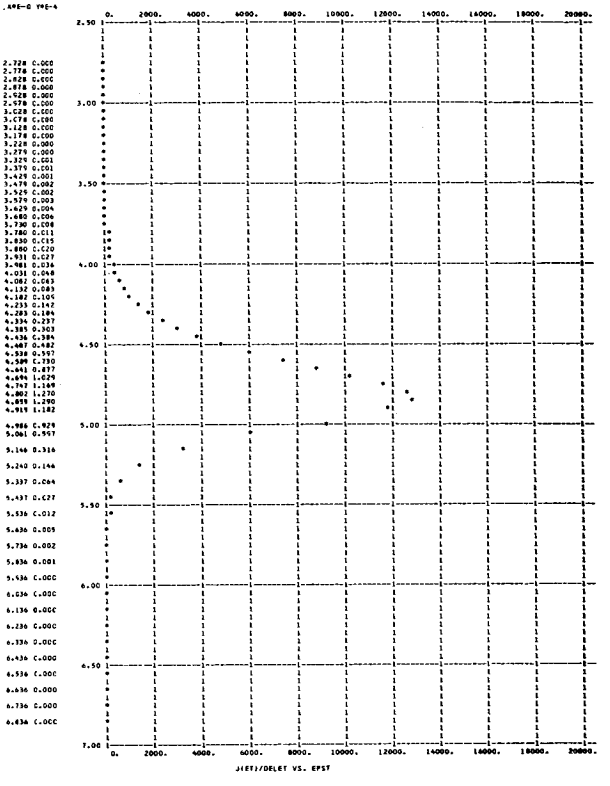
T = 1.00000000E 03 E = 0.10000002E 09 PHI = 8.00 AMU = 5.00 EVMAX = 9.6554

NEM = 0.50780506E 23 NEE = 0.36551936E 15 VXAV = 0.12455421E 09 KEXAV = 0.44249238E 01 KEXFL = 0.55457485E 09

J = 0.729342E C4 KETAV= 0.475127E 01 KETFL= 0.593700E 09 TZERO = 0.367577E 05 TD = 0.263587E 04

Figure 3. - Continued.


0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000.
1.00
2.00
3.00
4.00
5.00
6.00
7.00
J(EXI/DELEX VS. EPSLON


0.
2000.
4000.
6000.
8000.
10000.
12000.
14000.
16000.
18000.
20000.
2.50
3.00
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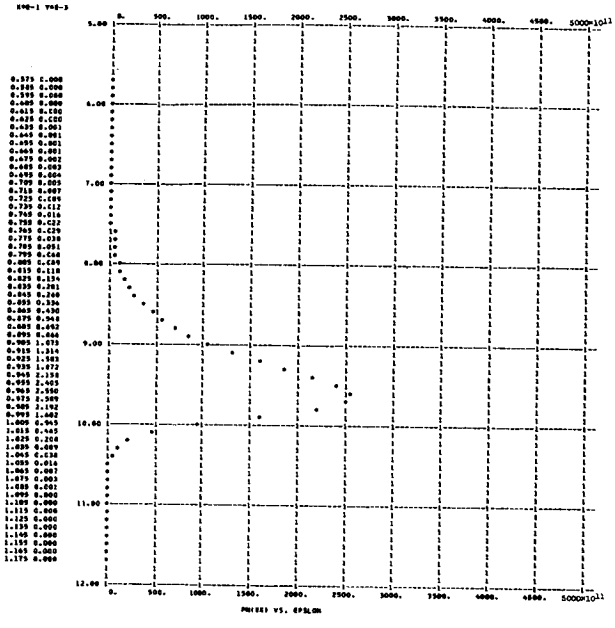
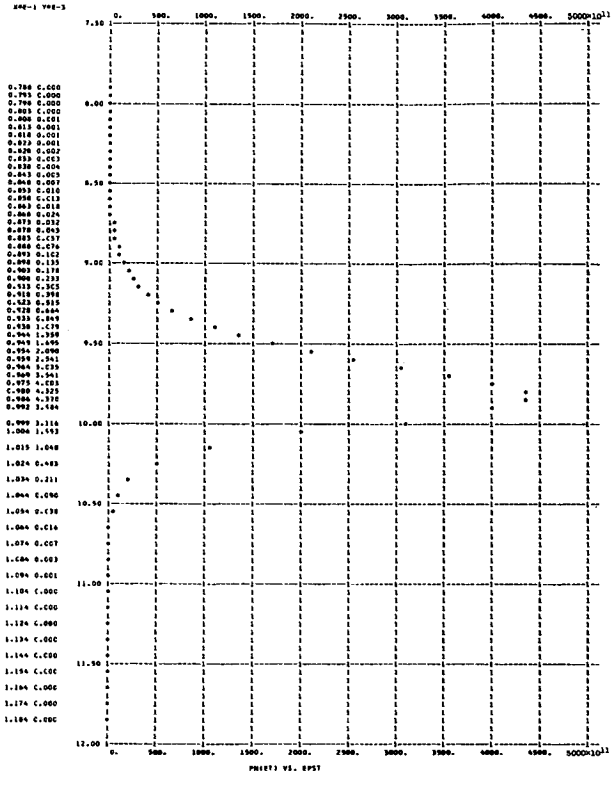
7.00
J(ET)/DELET VS. EPST



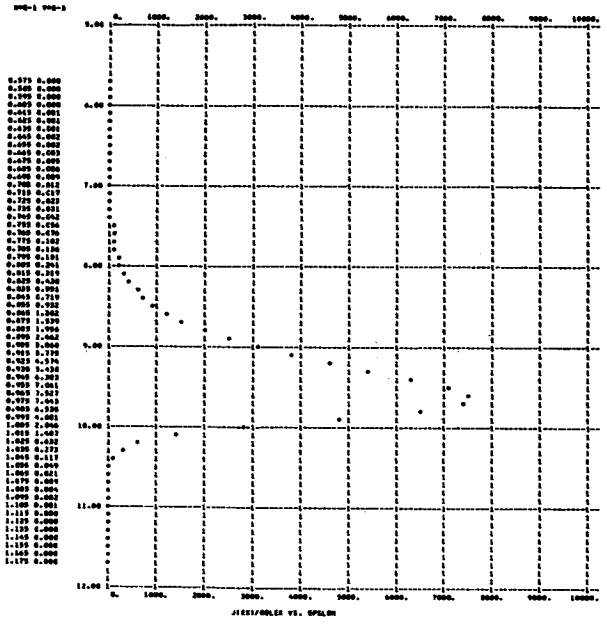


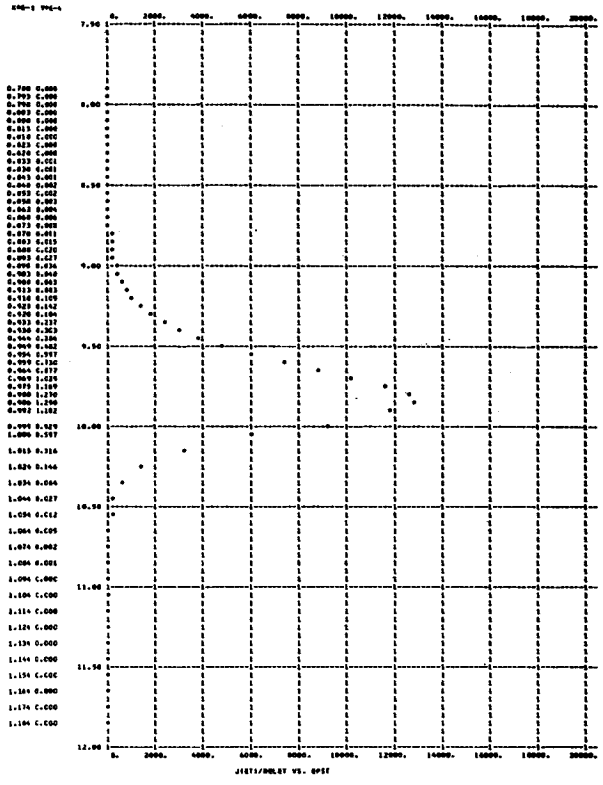
T = 1.00000000E 03 E = 0.10000002E 09 PHI = 8.00 AMU = 10.00 EVMAX = 14.6554

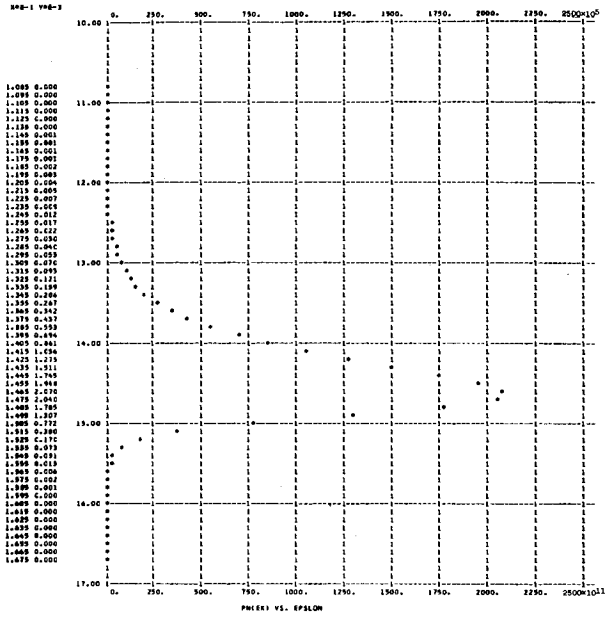
NEM = 0.14367002E 24 NEE = 0.24991904E 15 VXAV = 0.18216608E 09 KEXAV = 0.94404522E 01 KEXFL = 0.17219213E 10

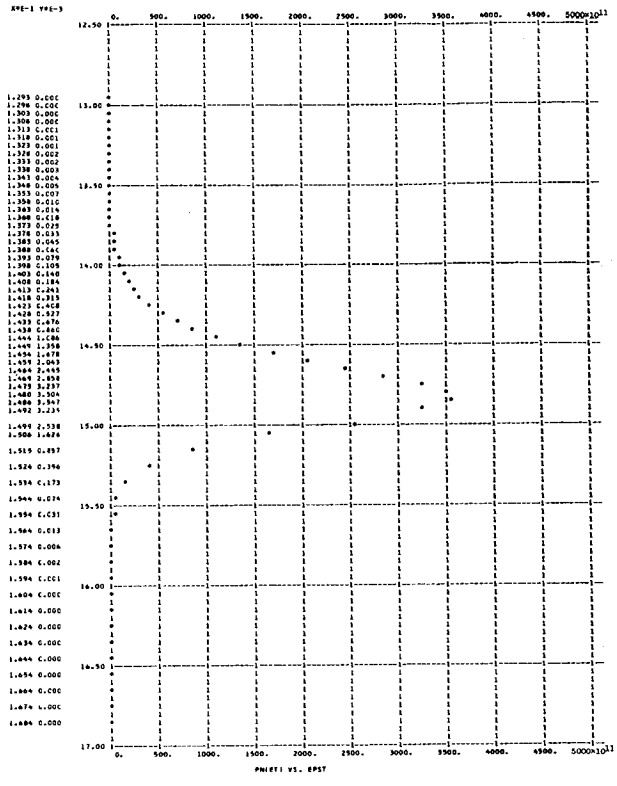
J = 0.729339E 04 KETAV= 0.975986E 01 KETFL= 0.177914E 10 TZERO = 0.755062E 05 TD = 0.251830E 04

Figure 3. - Continued.







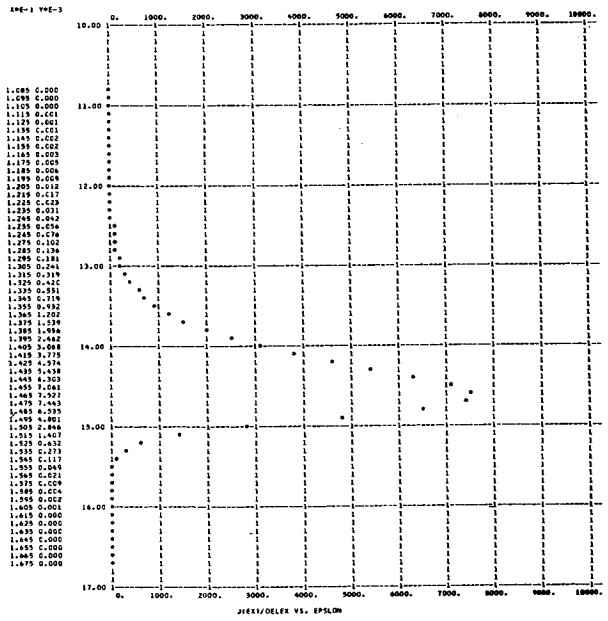


T = 1.00000000E 03 E = 0.10000002E 09 PHI = 8.00 AMU = 15.00 EVMAX = 19.6554

NEM = 0.26396224E 24 NEE = 0.20200150E 15 VXAV = 0.22537615E 09 KEXAV = 0.14444748E 02 KEXFL = 0.32572438E 10

J = 0.729332E 04 KETAV= 0.147623E 02 KETFL= 0.332804E 10 TZERO = 0.114207E 06 TD = 0.248656E 04

Figure 3. - Continued.


XRE-1 YRE-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
10.00
11.00
12.00
13.00
14.00
15.00
16.00
17.00
1.085 0.000
1.095 0.000
1.105 0.000
1.115 0.001
1.125 0.001
1.135 0.001
1.145 0.002
1.155 0.002
1.165 0.003
1.175 0.005
1.185 0.006
1.195 0.009
1.205 0.012
1.215 0.017
1.225 0.023
1.235 0.031
1.245 0.042
1.255 0.056
1.265 0.076
1.275 0.102
1.285 0.134
1.295 0.181
1.305 0.241
1.315 0.319
1.325 0.420
1.335 0.551
1.345 0.719
1.355 0.932
1.365 1.202
1.375 1.539
1.385 1.956
1.395 2.462
1.405 3.068
1.415 3.775
1.425 4.574
1.435 5.438
1.445 6.303
1.455 7.081
1.465 7.927
1.475 7.443
1.485 6.535
1.495 4.801
1.505 2.866
1.515 1.467
1.525 0.632
1.535 0.273
1.545 0.117
1.555 0.049
1.565 0.021
1.575 0.009
1.585 0.004
1.595 0.002
1.605 0.001
1.615 0.000
1.625 0.000
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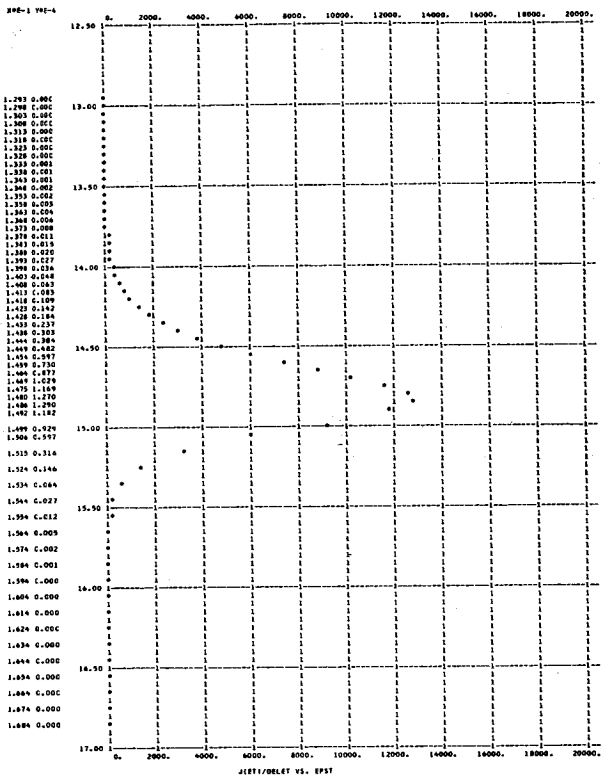
1.645 0.000
1.655 0.000
1.665 0.000
1.675 0.000
JIEXI/DELEX VS. EPSLON


XRE-1 YRE-4
0. 2000. 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000. 20000.
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
16.50
17.00
1.293 0.000
1.298 0.000
1.303 0.000
1.308 0.000
1.313 0.000
1.318 0.000
1.323 0.000
1.328 0.000
1.333 0.000
1.338 0.000
1.343 0.001
1.348 0.002
1.353 0.002
1.358 0.003
1.363 0.004
1.368 0.006
1.373 0.008
1.378 0.011
1.383 0.015
1.388 0.020
1.393 0.027
1.398 0.036
1.403 0.048
1.408 0.063
1.413 0.083
1.418 0.109
1.423 0.142
1.428 0.184
1.433 0.237
1.438 0.303
1.444 0.384
1.449 0.482
1.454 0.597
1.459 0.730
1.464 0.877
1.469 1.029
1.474 1.169
1.480 1.270
1.486 1.290
1.492 1.182
1.499 0.929
1.506 0.597
1.515 0.316
1.524 0.146
1.534 0.064
1.544 0.027
1.554 0.012
1.564 0.005
1.574 0.002
1.584 0.001
1.594 0.000
1.604 0.000
1.614 0.000
1.624 0.000
1.634 0.000
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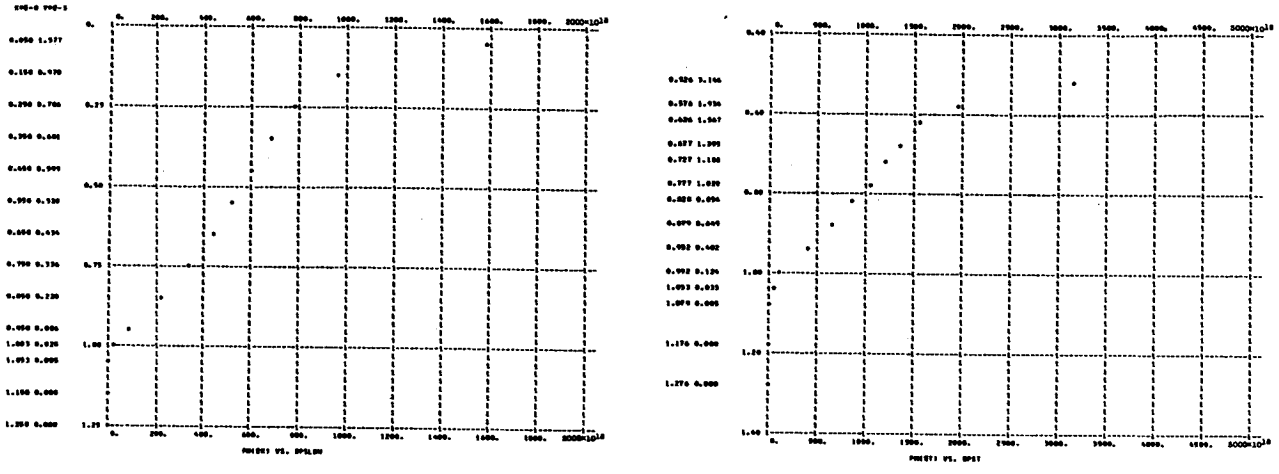
1.664 0.000
1.674 0.000
1.684 0.000
JIETI/DELET VS. EPST

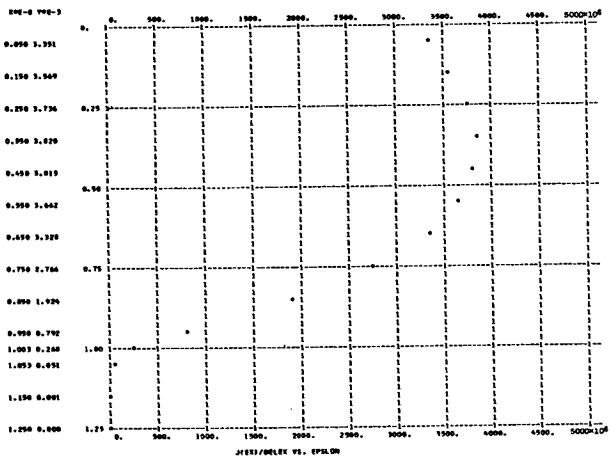


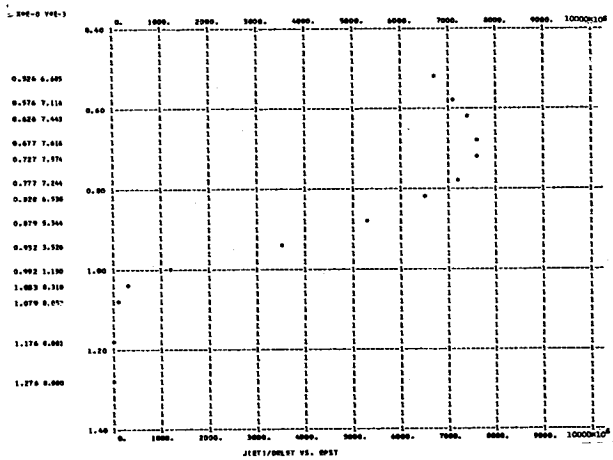
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 2.00 AMU = 1.00 EVMAX = 1.0053

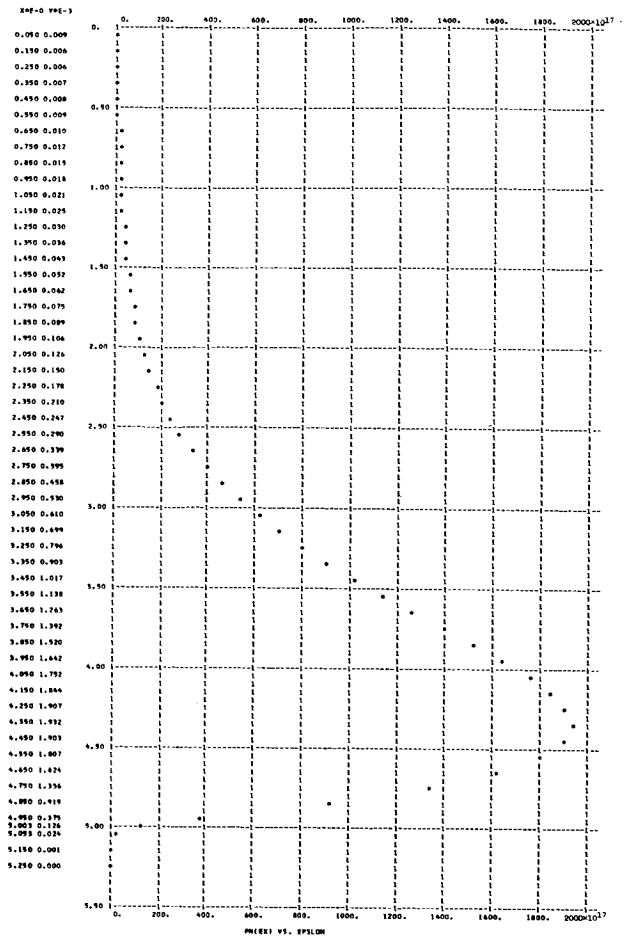
NEM = 0.45048353E 22 NEE = 0.68907298E 21 VxAV = 0.29277681E 08 KEXAV = 0.29916986E-00 KEXFL = 0.12224150E 08

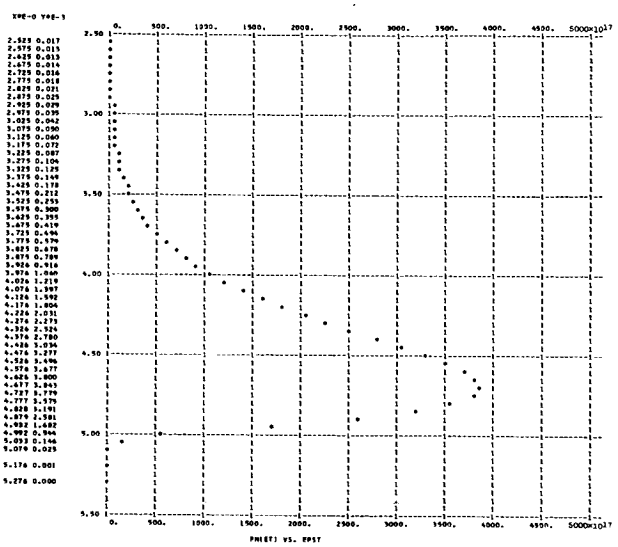
J = 0.323171E 10 KETAV= 0.651744F 00 KETFL= 0.208344E 08 TZERO = 0.504215E 04 TD = 0.315681E 04

Figure 3. - Continued.


0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000*10^6
0.25
0.50
0.75
1.00
1.25
JCST/DELEX VS. EPSLON


0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000*10^6
0.40
0.60
0.80
1.00
1.20
1.40
JCST/DELST VS. DPST



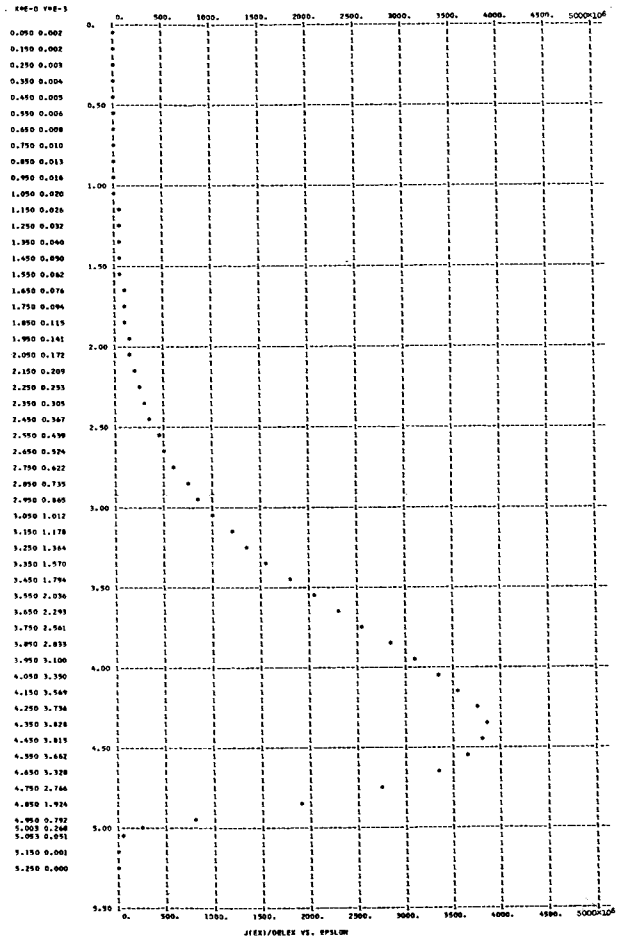


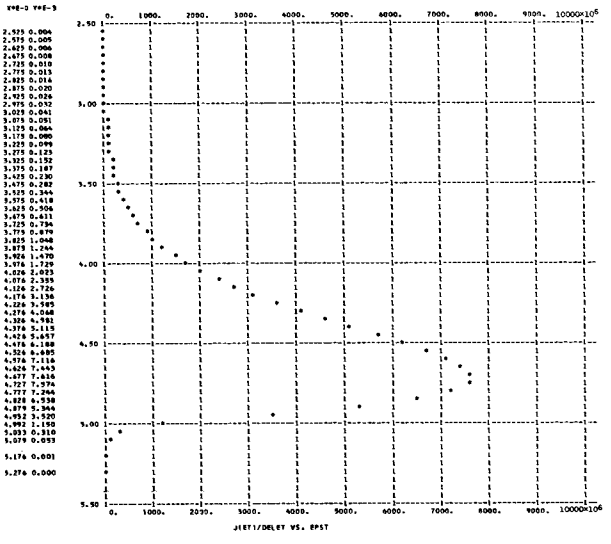
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 2.00 AMU = 5.00 EVMAX = 5.0053

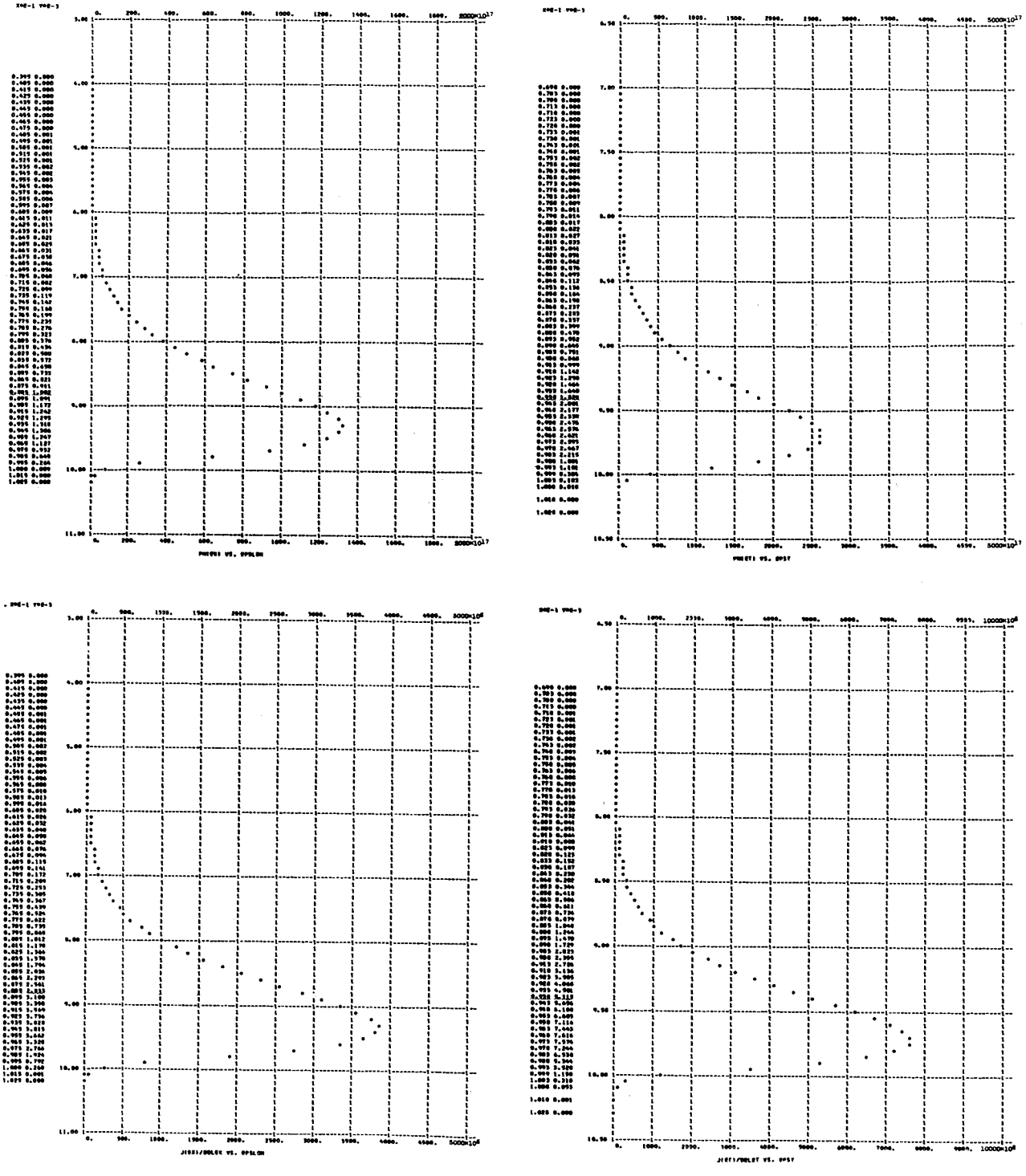
NEM = 0.50763669E 23 NEE = 0.29974943E 21 VXAV = 0.11619040E 09 KEXAV = 0.38804721E 01 KEXFL = 0.45973969E 09

J = 0.557945E 10 KETAV= 0.444206E 01 KETFL= 0.520572E 09 TZERO = 0.343656E 05 TD = 0.467242E 04

Figure 3. - Continued.


J(EX)/DELEX VS. EPSLON


J(ET)/DELET VS. EPST

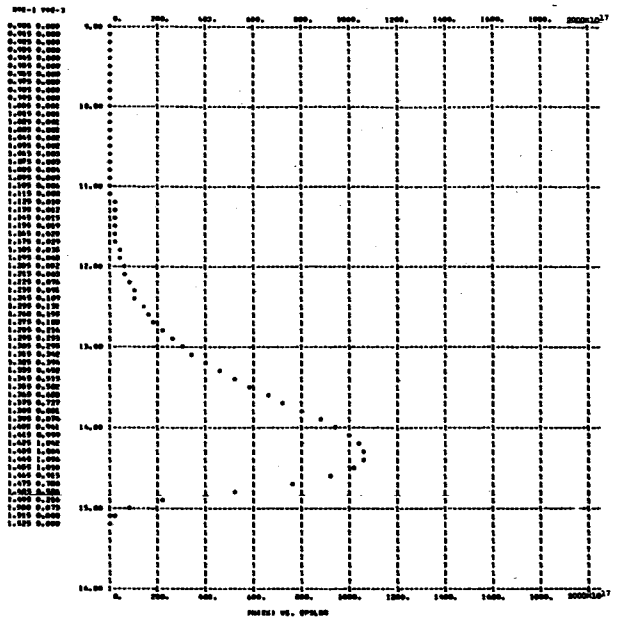


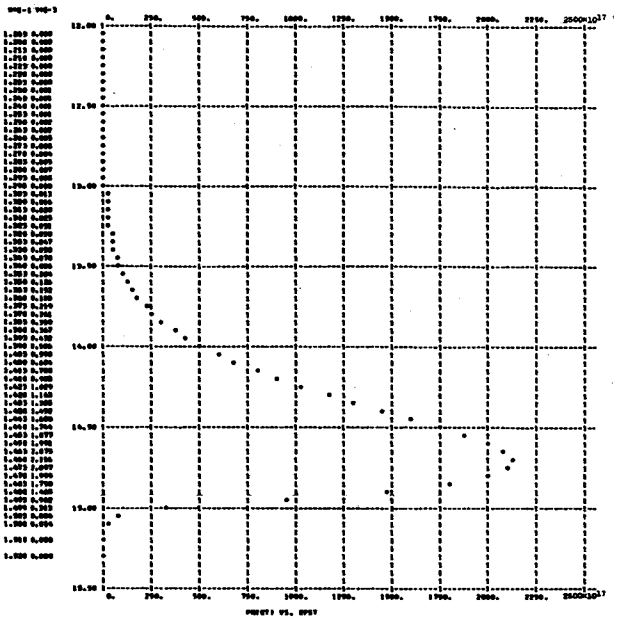
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 2.00 AMU = 10.00 EVMAX = 10.0053

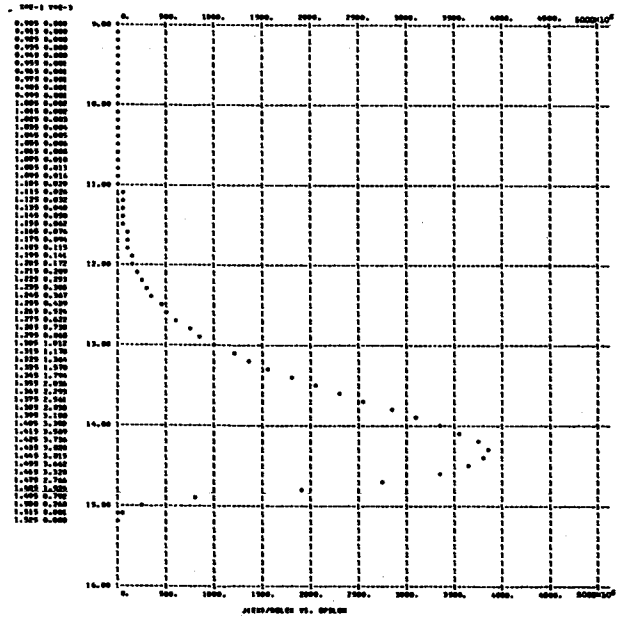
NEM = 0.14365812E 24 NEE = 0.19669738E 21 VXAV = 0.17707735E 09 KEXAV = 0.89287757E 01 KEXFL = 0.15859701E 10

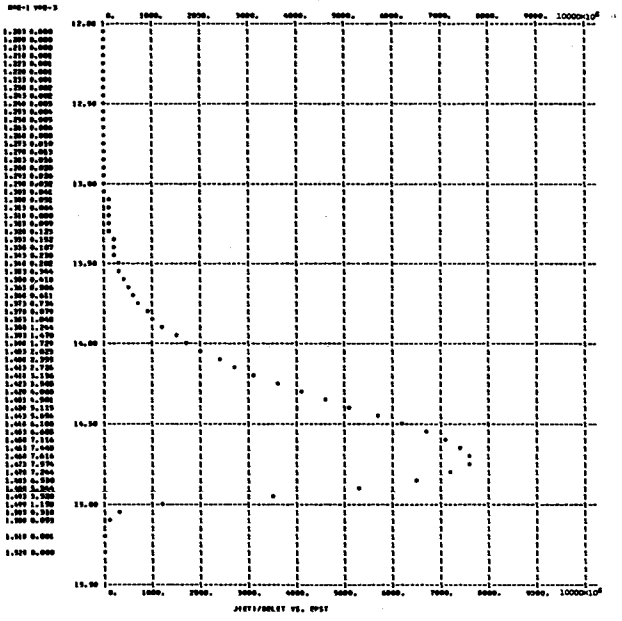
J = 0.557987E 10 KETAV= 0.946628E 01 KETFL= 0.167872E 10 TZERO = 0.732350E 05 TD = 0.426789E 04

Figure 3. - Continued.







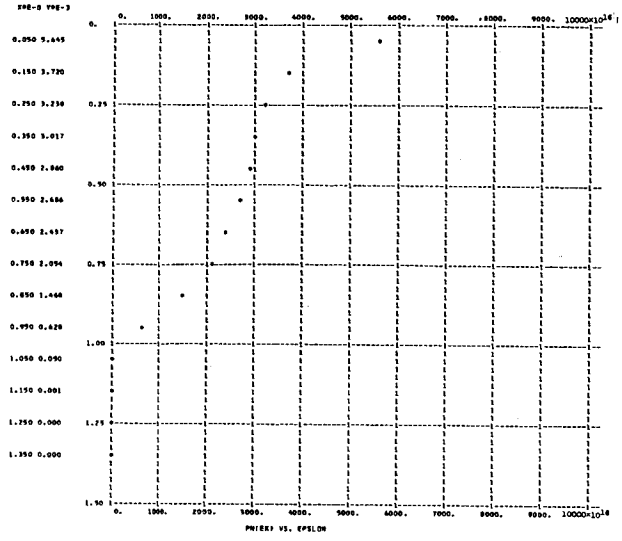


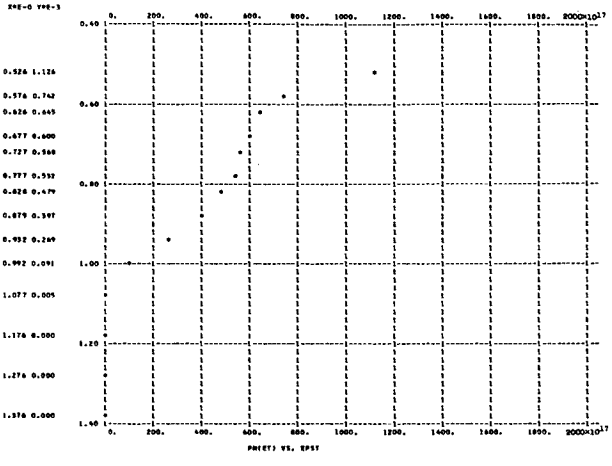
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 2.00 AMU = 15.00 EVMAX = 15.0053

NEN = 0.26395253E 24 NEE = 0.15734946E 21 VXAV = 0.22135799E 09 KEXAV = 0.13939220E 02 KEXFL = 0.30893537E 10

J = 0.5579066E 10 KETAV= 0.144715E 02 KETFL= 0.320529E 10 TZERO = 0.111958E 06 TD = 0.418547E 04

Figure 3. - Continued.



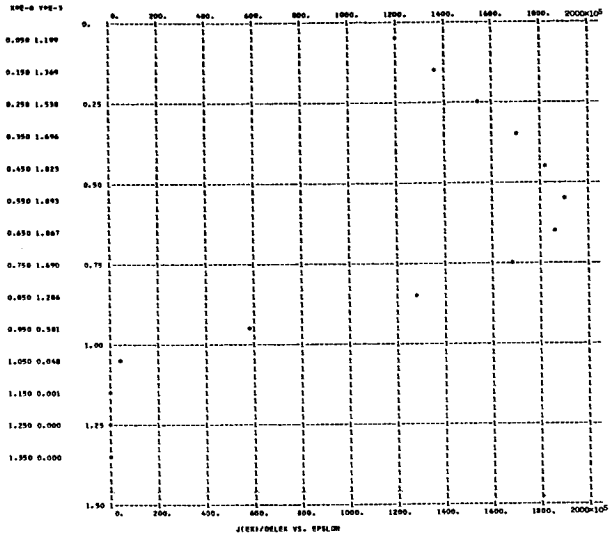


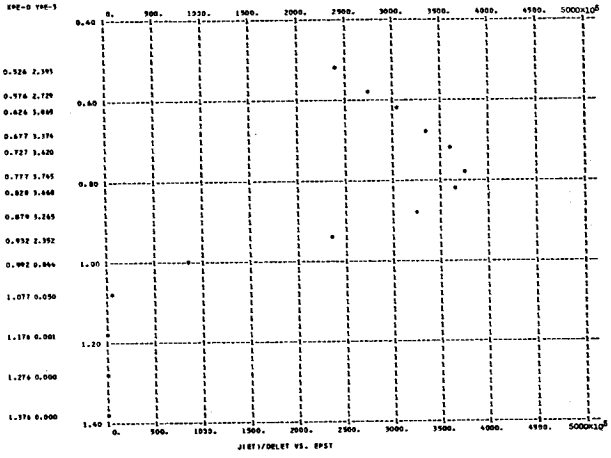
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 4.00 AMU = 1.00 EVMAX = 2.1054

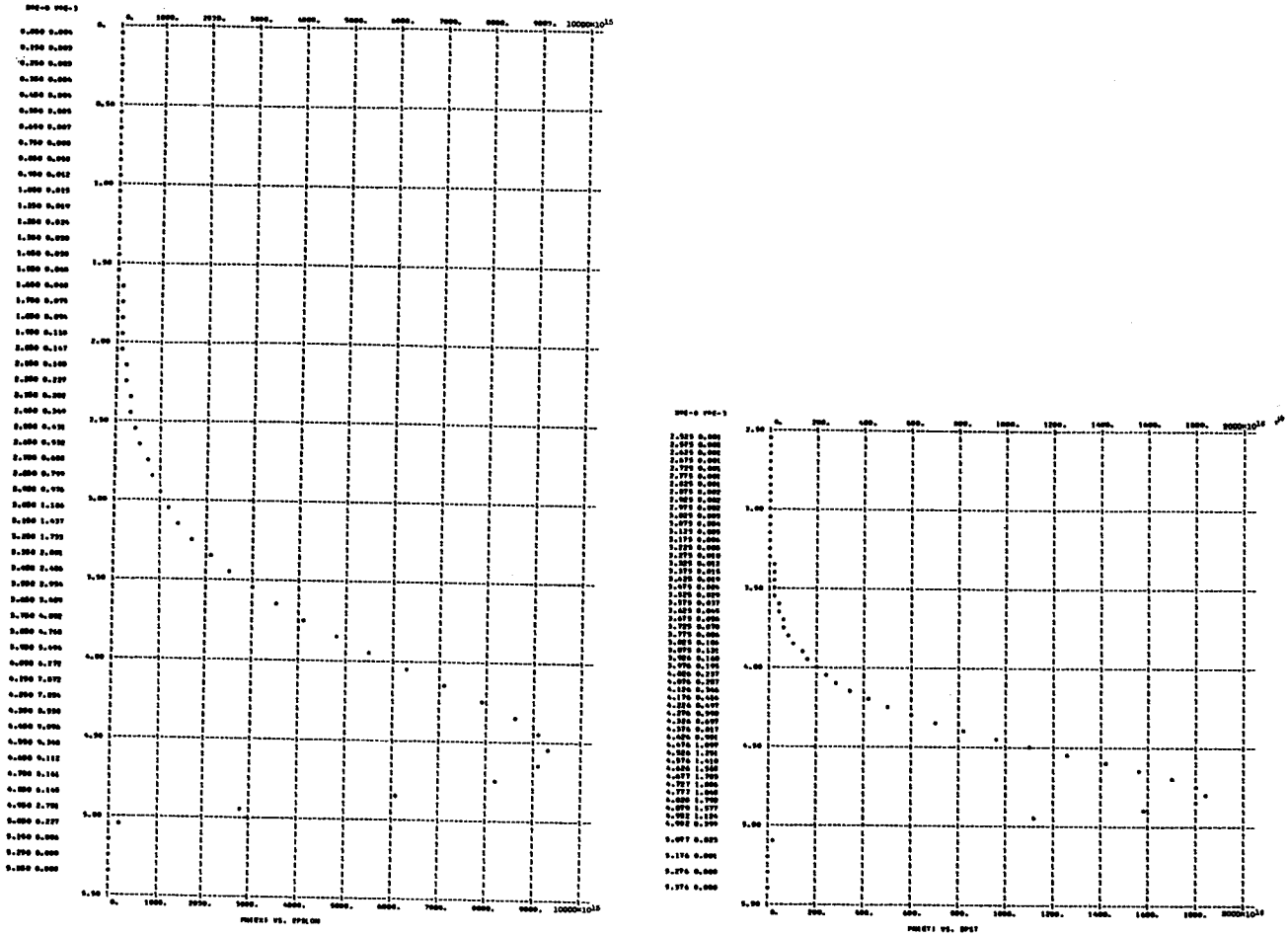
NEM = 0.45046996E 22 NEE = 0.30231509E 20 VXAV = 0.32063308E 08 KEXAV = 0.35164934E-00 KEXFL = 0.15112925E 08

J = 0.155285E 09 KETAV= 0.678378E 00 KETFL= 0.236965E 08 TZERO = 0.524820E 04 TD = 0.298704E 04

Figure 3. - Continued.


J(EXI/DELER VS. EPSLON


JIETI/DELET VS. EPST

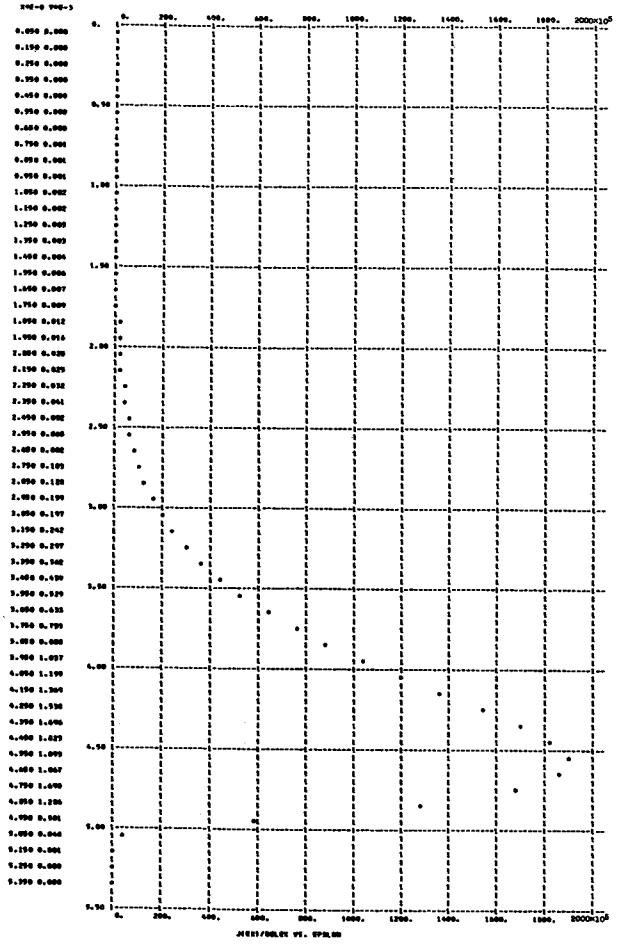


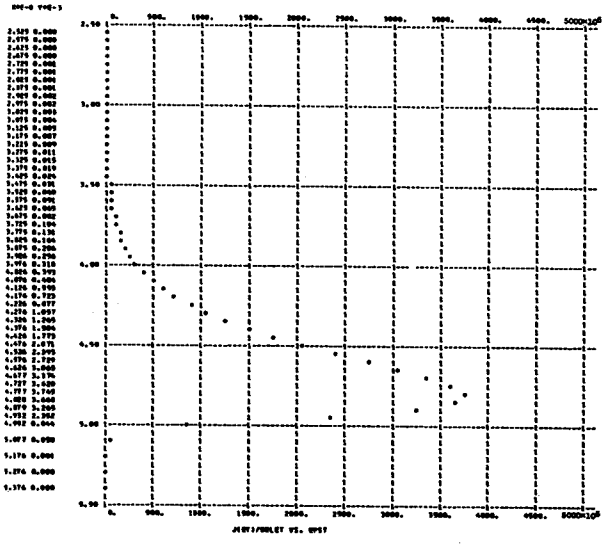
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 4.00 AMU = 5.00 EVMAX = 6.1054

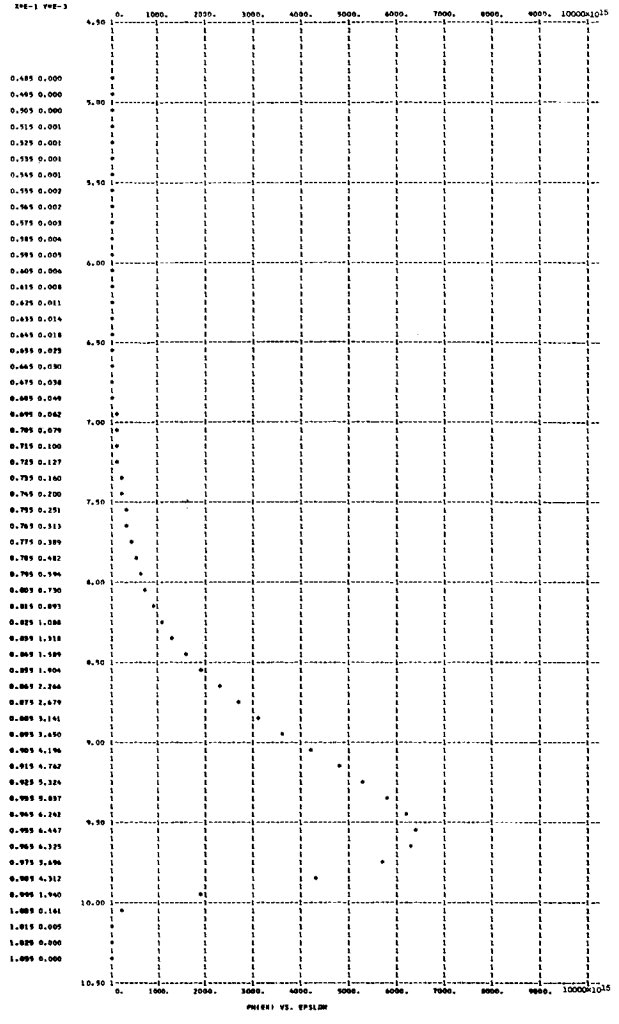
NEN = 0.50763609E 23 NEE = 0.10947615E 20 VXAV = 0.12057633E 09 KEXAV = 0.41570792E 01 KEXFL = 0.50657273E 09

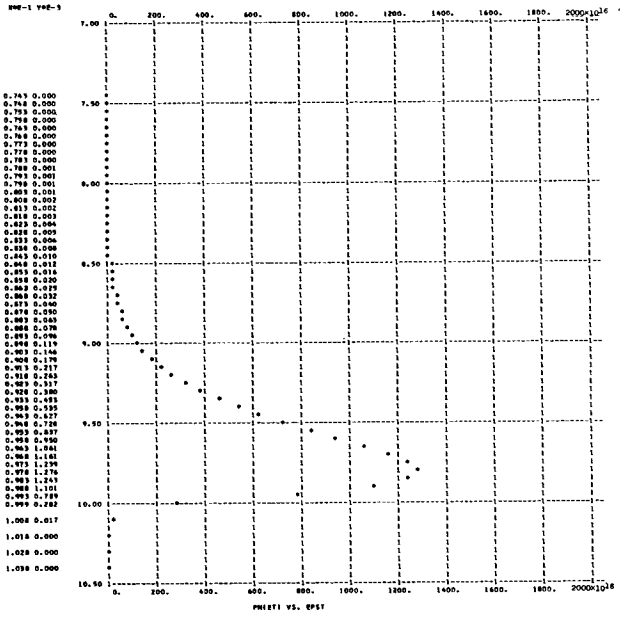
J = 0.211464E 09 KETAV= 0.458109E 01 KETFL= 0.555050E 09 TZERO = 0.354412E 05 TD = 0.346400E 04

Figure 3. - Continued.







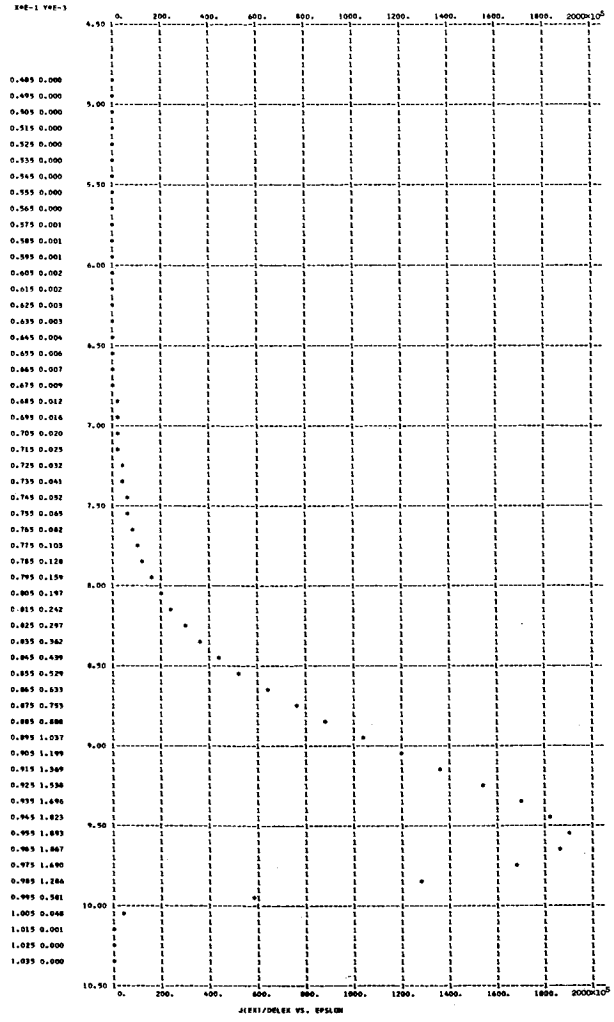


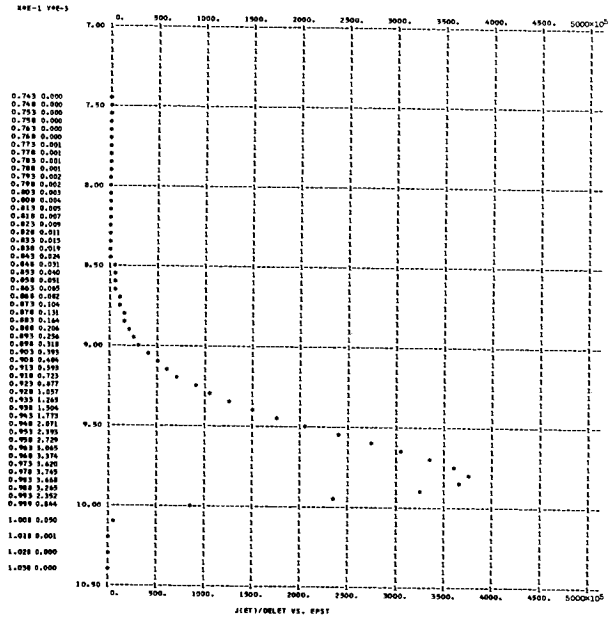
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 4.00 AMU = 10.00 EVMAX = 11.1054

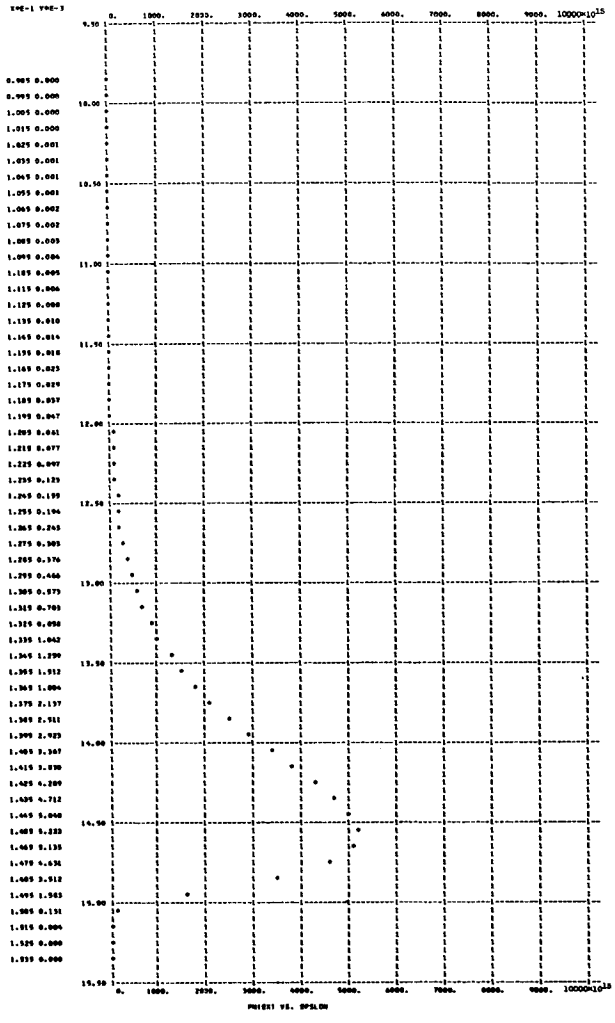
NEM = 0.14365808E 24 NEE = 0.73479746E 19 VXAV = 0.17964049E 09 KEXAV = 0.91835777E 01 KEXFL = 0.16529113E 10

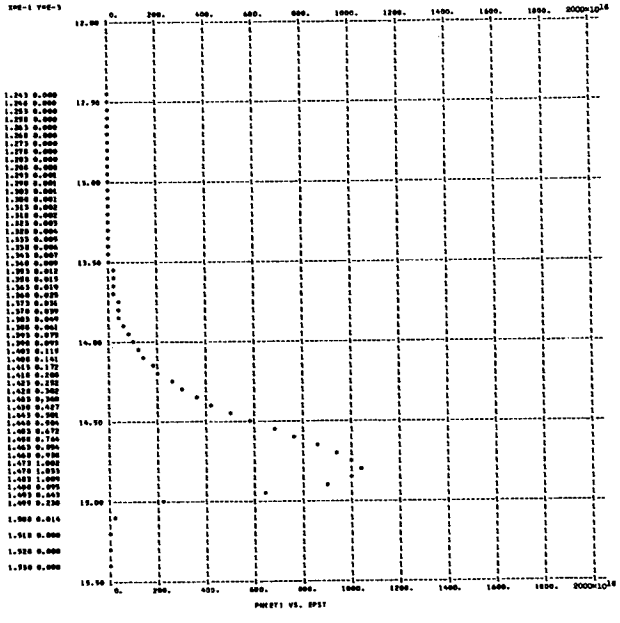
J = 0.211463E 09 KETAV= 0.959441E 01 KETFL= 0.172514E 10 TZERO = 0.742262E 05 TD = 0.324814E 04

Figure 3. - Continued.


X*E-1 Y*E-3
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000X10^5
4.50
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
0.485 0.000
0.495 0.000
0.505 0.000
0.515 0.000
0.525 0.000
0.535 0.000
0.545 0.000
0.555 0.000
0.565 0.000
0.575 0.001
0.585 0.001
0.595 0.001
0.605 0.002
0.615 0.002
0.625 0.003
0.635 0.003
0.645 0.004
0.655 0.006
0.665 0.007
0.675 0.009
0.685 0.012
0.695 0.016
0.705 0.020
0.715 0.025
0.725 0.032
0.735 0.041
0.745 0.052
0.755 0.065
0.765 0.082
0.775 0.103
0.785 0.128
0.795 0.159
0.805 0.197
0.815 0.242
0.825 0.297
0.835 0.362
0.845 0.439
0.855 0.529
0.865 0.633
0.875 0.755
0.885 0.898
0.895 1.037
0.905 1.199
0.915 1.369
0.925 1.538
0.935 1.696
0.945 1.825
0.955 1.893
0.965 1.867
0.975 1.690
0.985 1.386
0.995 0.581
1.005 0.048
1.015 0.001
1.025 0.000
1.035 0.000
JCEK1/DELEK VS. EPSLON


X*E-1 Y*E-3
0. 500. 1000. 1500. 2000. 2500. 3000. 3500. 4000. 4500. 5000X10^5
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
0.743 0.000
0.748 0.000
0.753 0.000
0.758 0.000
0.763 0.000
0.768 0.000
0.773 0.001
0.778 0.001
0.783 0.001
0.788 0.001
0.793 0.002
0.798 0.002
0.803 0.003
0.808 0.004
0.813 0.005
0.818 0.007
0.823 0.009
0.828 0.011
0.833 0.015
0.838 0.019
0.843 0.024
0.848 0.031
0.853 0.040
0.858 0.051
0.863 0.065
0.868 0.082
0.873 0.104
0.878 0.131
0.883 0.166
0.888 0.206
0.893 0.256
0.898 0.318
0.903 0.393
0.908 0.486
0.913 0.599
0.918 0.723
0.923 0.877
0.928 1.057
0.933 1.265
0.938 1.506
0.943 1.779
0.948 2.071
0.953 2.393
0.958 2.729
0.963 3.065
0.968 3.376
0.973 3.628
0.978 3.749
0.983 3.668
0.988 3.265
0.993 2.352
0.998 0.844
1.008 0.050
1.018 0.001
1.028 0.000
1.038 0.000
JCET/DELET VS. EPST



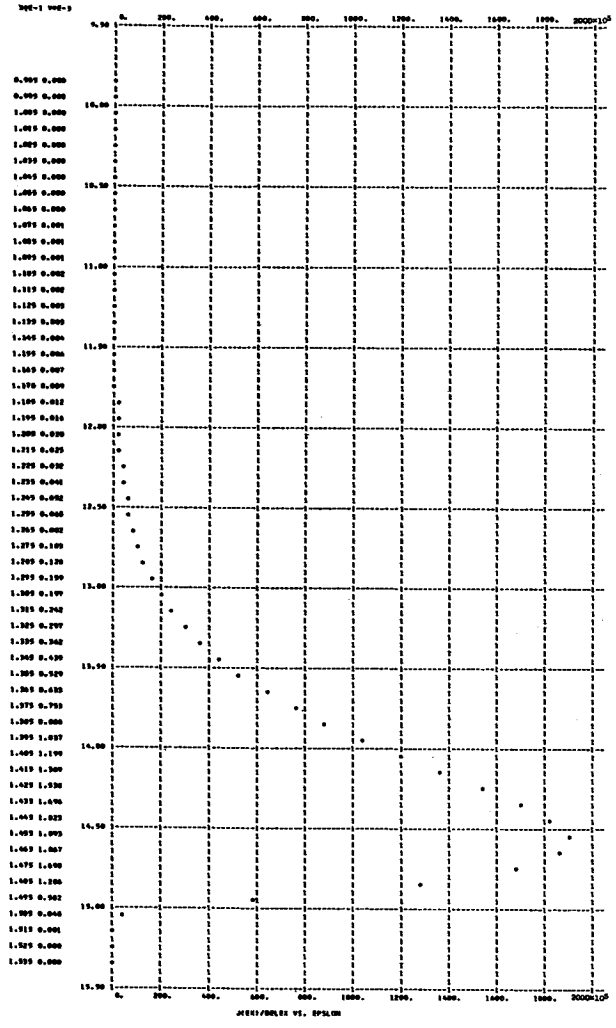


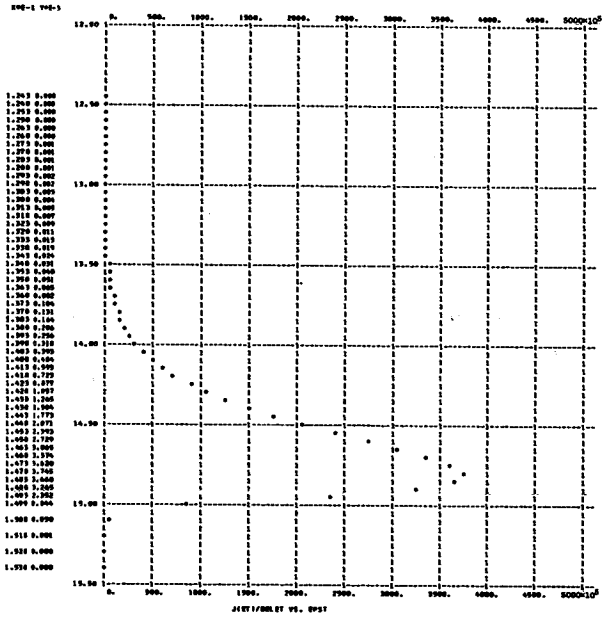
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 4.00 ANU = 15.00 EVMAX = 16.1054

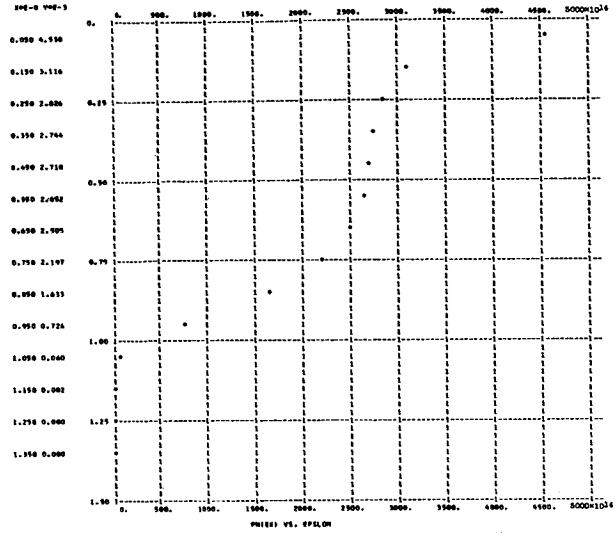
NEN = 0.26395249E 24 NEE = 0.59095170E 19 VXAV = 0.22336636E 09 KEXAV = 0.14190086E 02 KEXFL = 0.31720745E 10

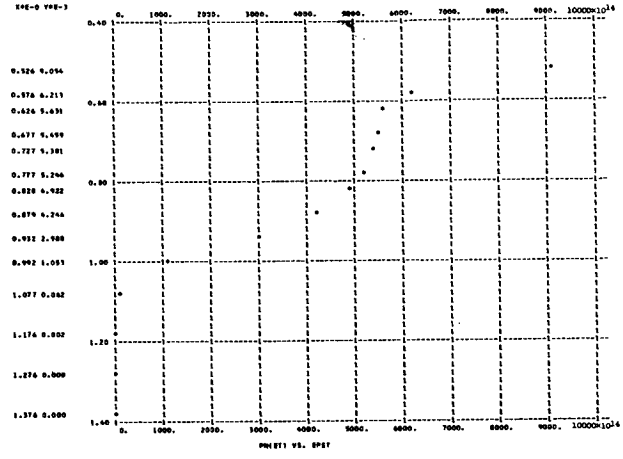
J = 0.211462E 09 KETAV= 0.145977E 02 KETFL= 0.326188E 10 TZERO = 0.112934E 06 TD = 0.319701E 04

Figure 3. - Continued.







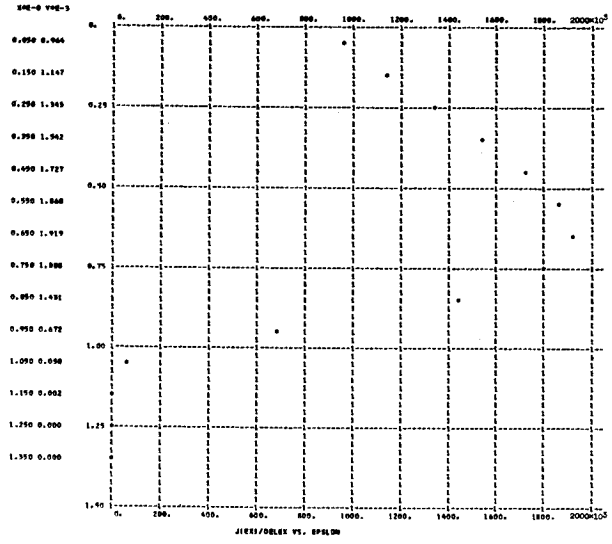


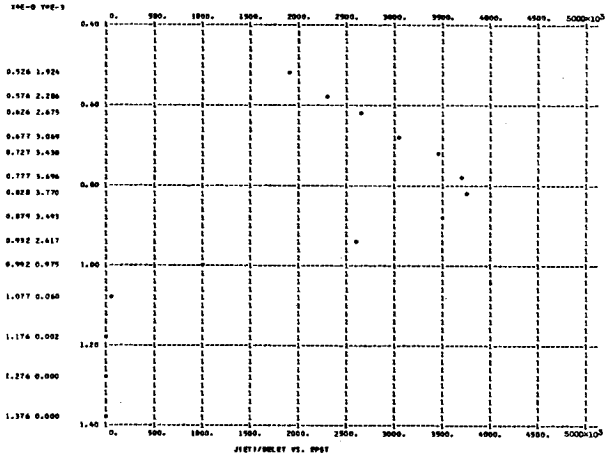
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 6.00 AMU = 1.00 EVMAX = 3.8054

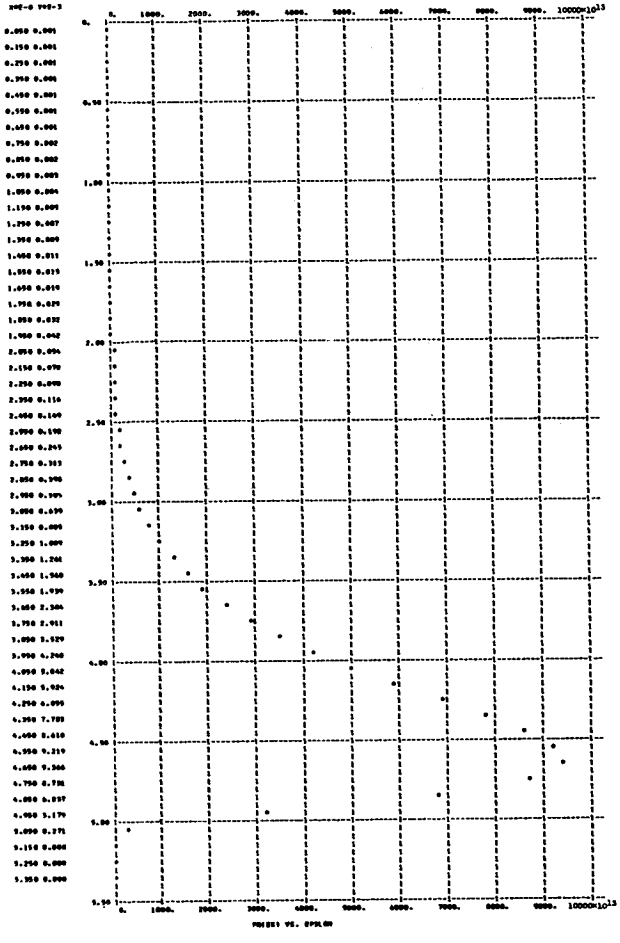
NEM = 0.45046996E 22 NEE = 0.27665690E 18 VXAV = 0.33652871E 08 KEXAV = 0.38208260E-00 KEXFL = 0.16812265E 08

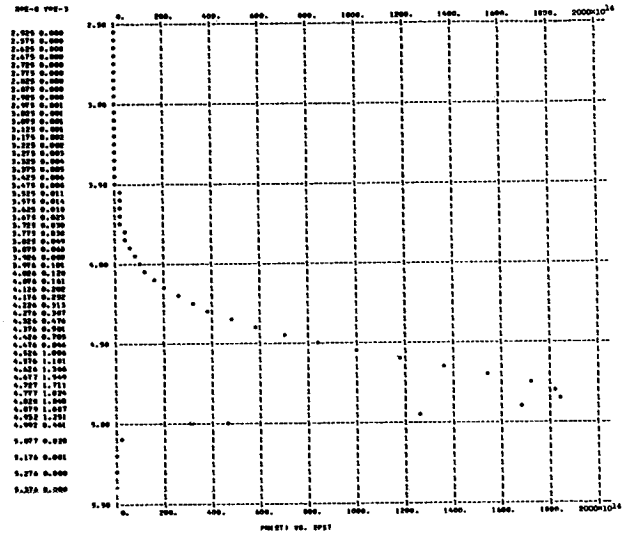
J = 0.149151E 07 KETAV= 0.693839E 00 KETFL= 0.253563E 08 TZERO = 0.536782E 04 TD = 0.287689E 04

Figure 3. - Continued.







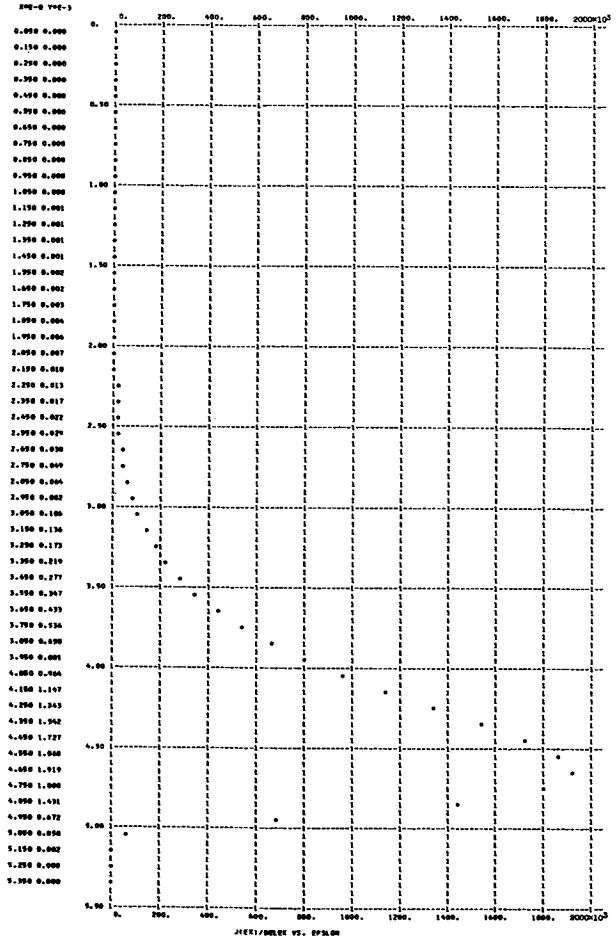


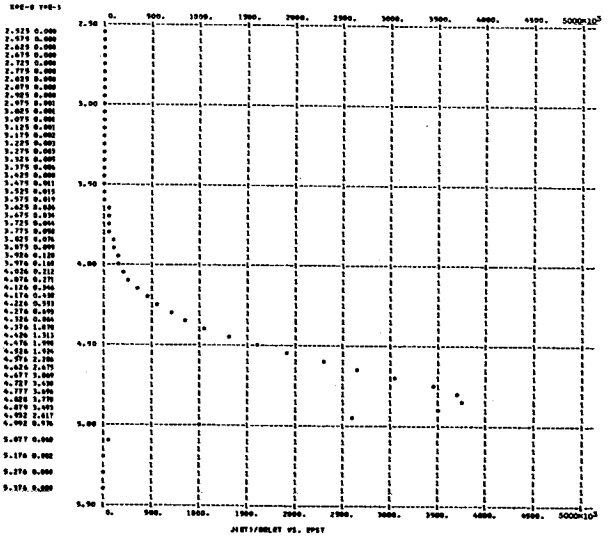
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 6.00 AMU = 5.00 EVMAX = 7.8054

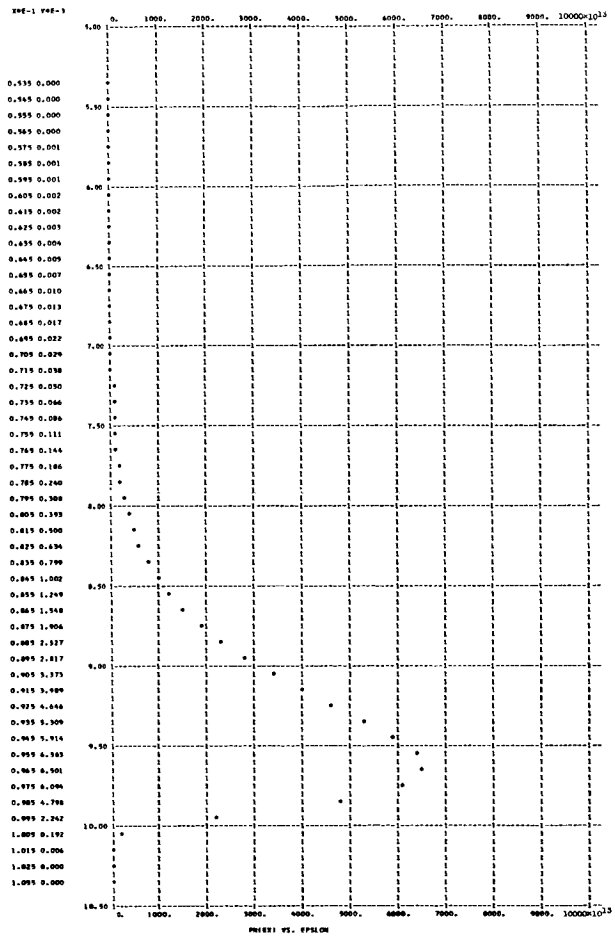
NEM = 0.50769609E 23 NEE = 0.94434050E 17 VXAV = 0.12240949E 09 KEXAV = 0.42768416E 01 KEXFL = 0.52743003E 09

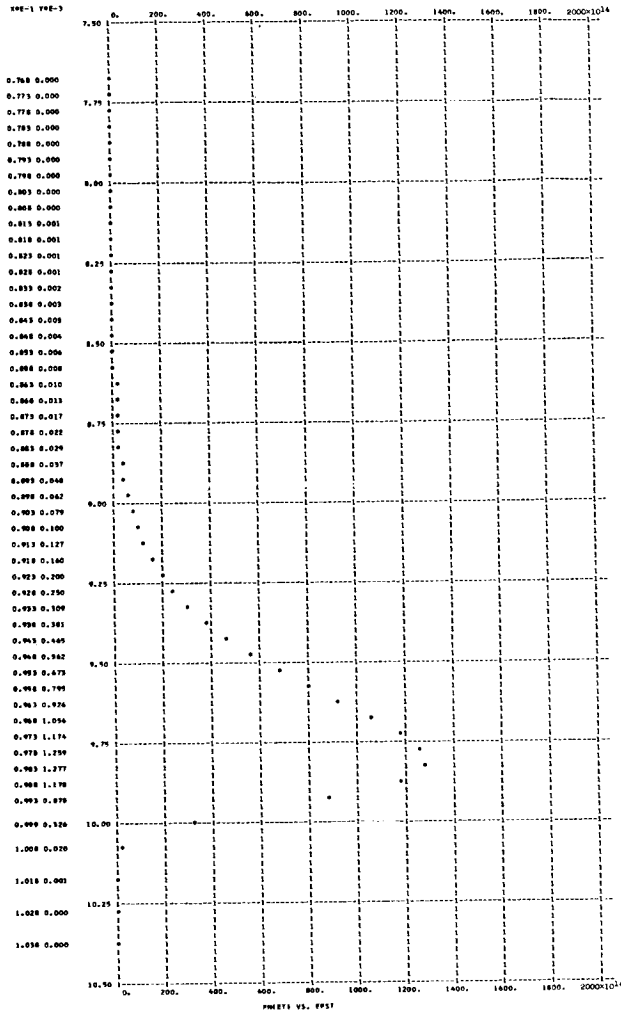
J = 0.185185E 07 KETAV= 0.464140E 01 KETFL= 0.570119E 09 TZERO = 0.359078E 05 TD = 0.295090E 04

Figure 3. - Continued.







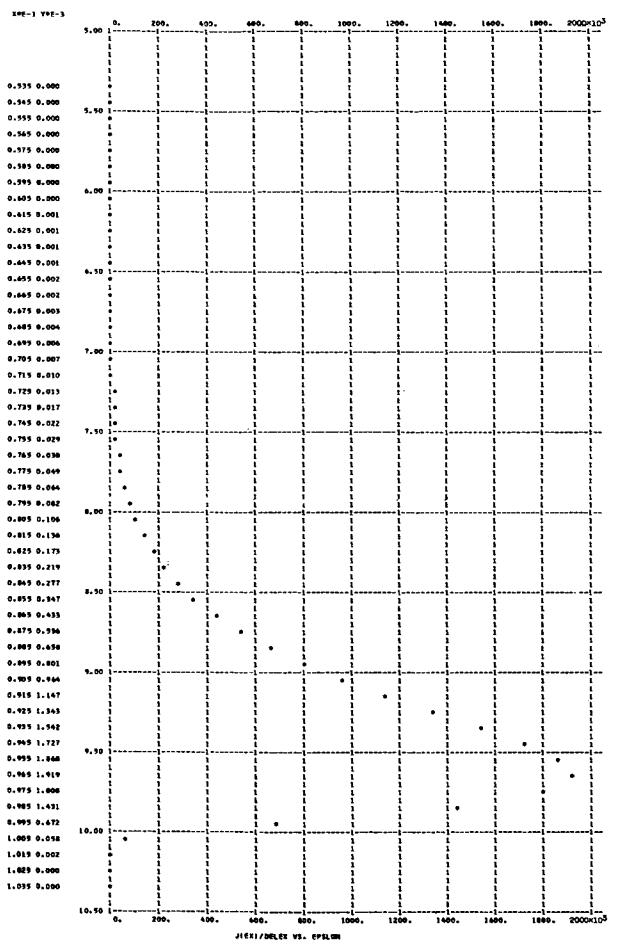


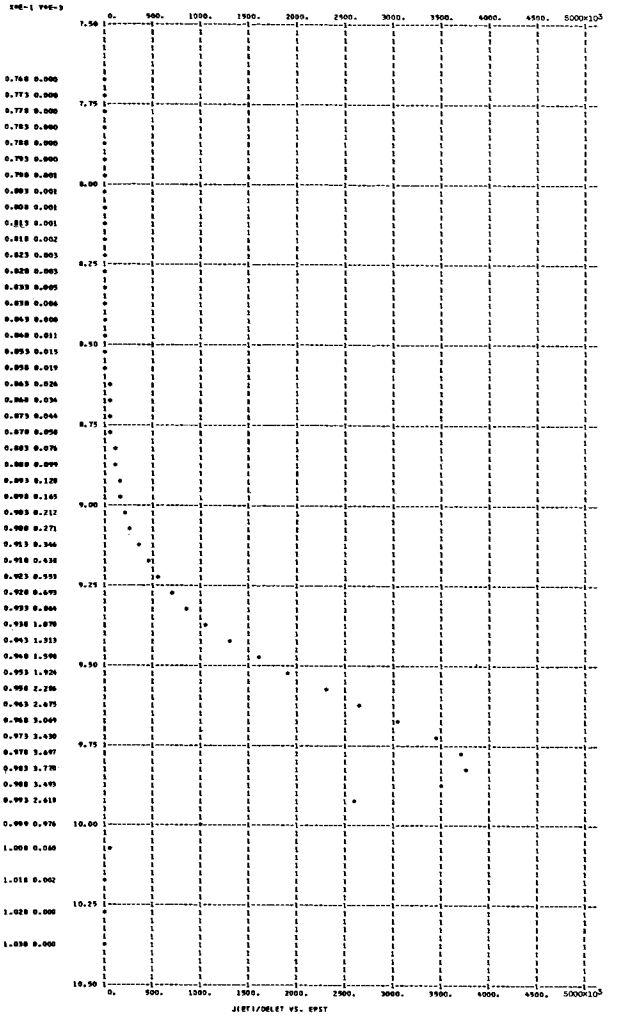
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 6.00 AMU = 10.00 EVMAX = 12.8054

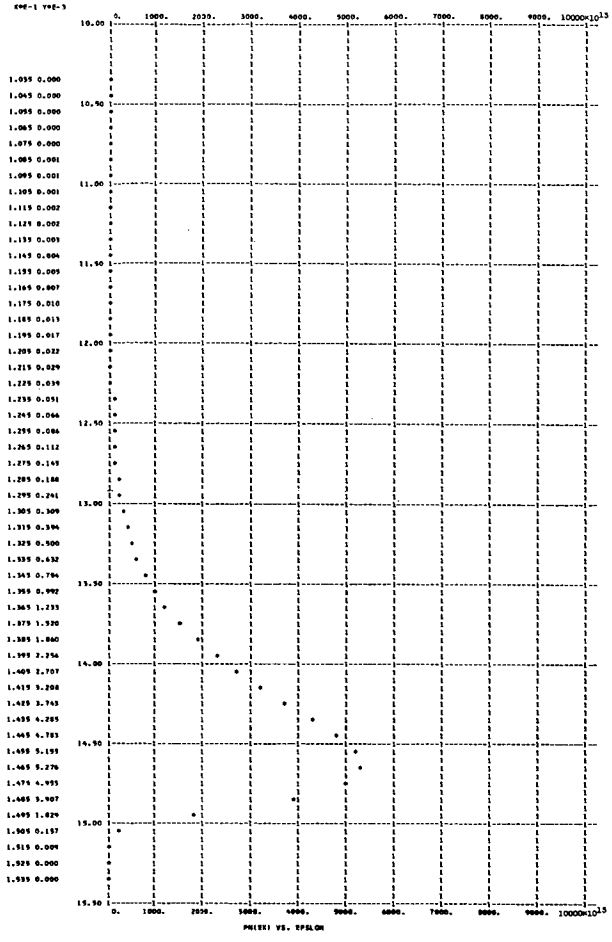
NEM = 0.14365808E 24 NEE = 0.63951577E 17 VXAV = 0.18075375E 09 KEXAV = 0.92954124E 01 KEXFL = 0.16825875E 10

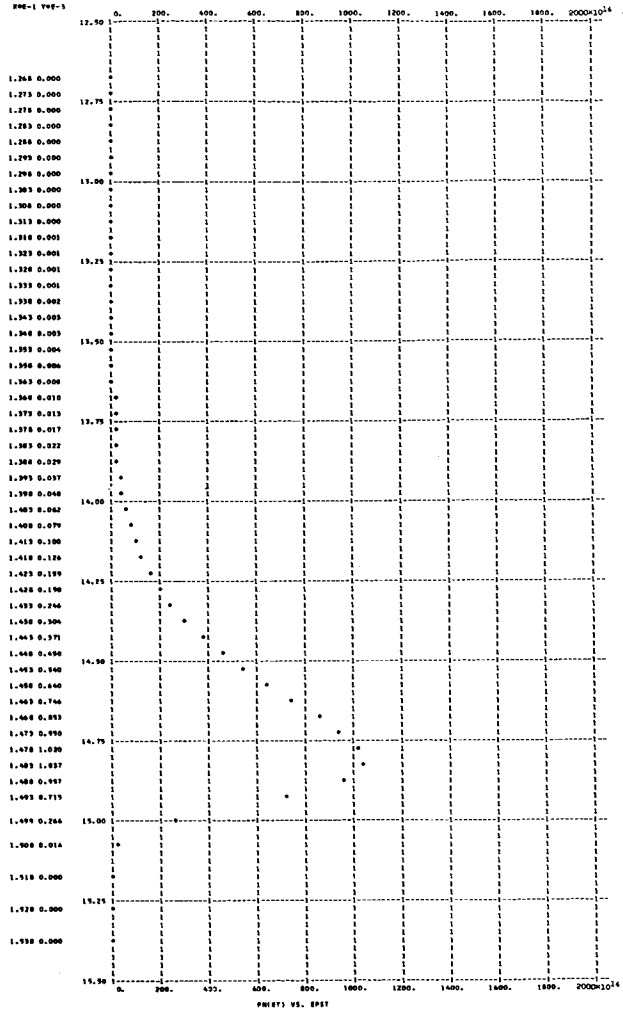
J = 0.185183E 07 KETAV= 0.965076E 01 KETFL= 0.174562E 10 TZERO = 0.746622E 05 TD = 0.280162E 04

Figure 3. - Continued.


JIEXI/DELEX VS. EPSLON


JIEYI/DELEY VS. EPSY



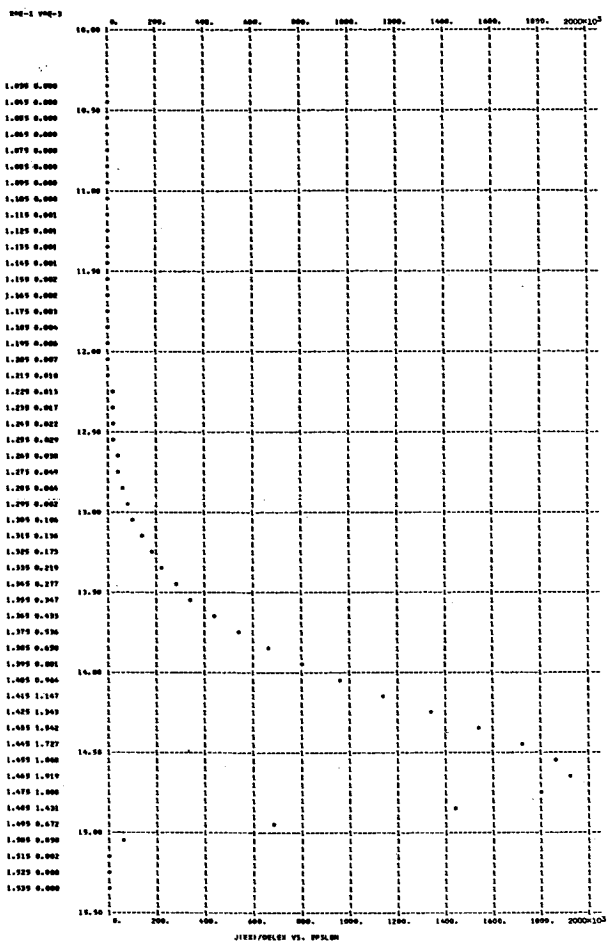


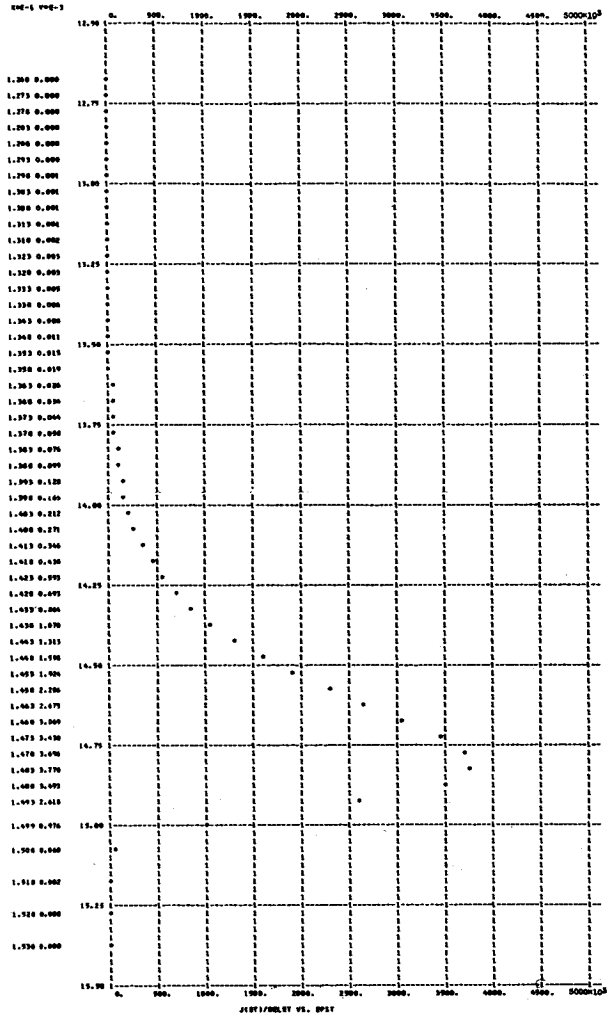
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 6.00 AMU = 15.00 EVMAX = 17.8054

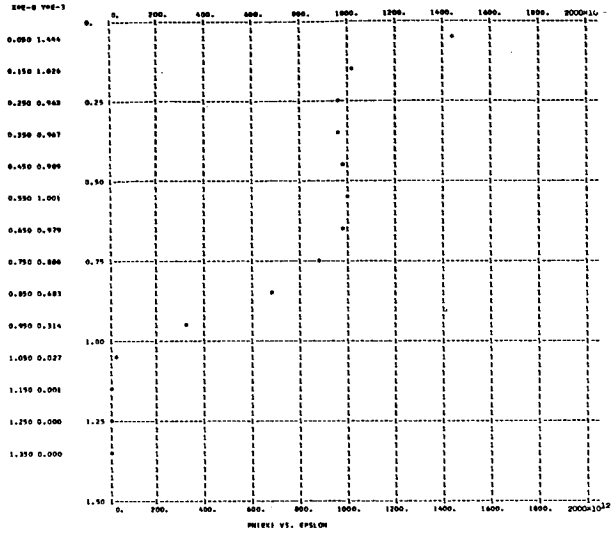
NEM = 0.26395249E 24 NEE = 0.51548731E 17 VXAV = 0.22424277E 09 KEXAV = 0.14300258E 02 KEXFL = 0.32086287E 10

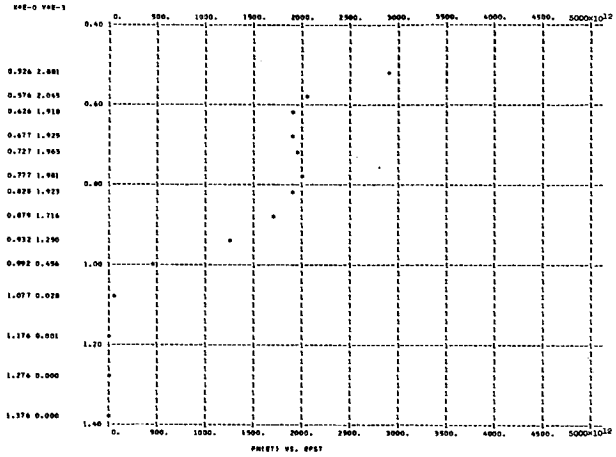
J = 0.185182E 07 KETAV= 0.146532E 02 KETFL= 0.328683E 10 TZERO = 0.113363E 06 TD = 0.276367E 04

Figure 3. - Continued.







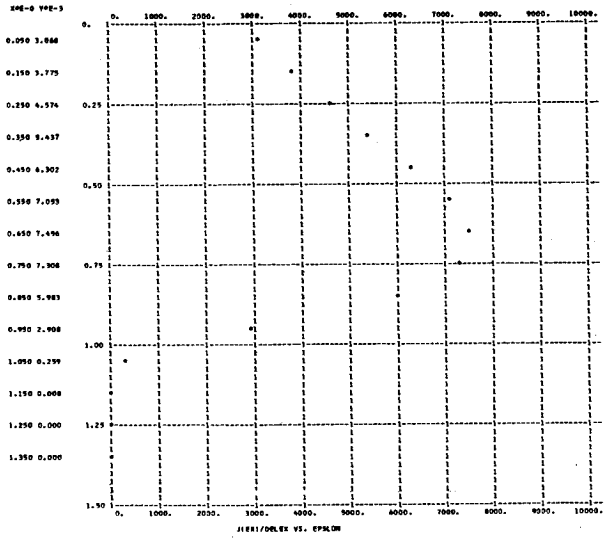


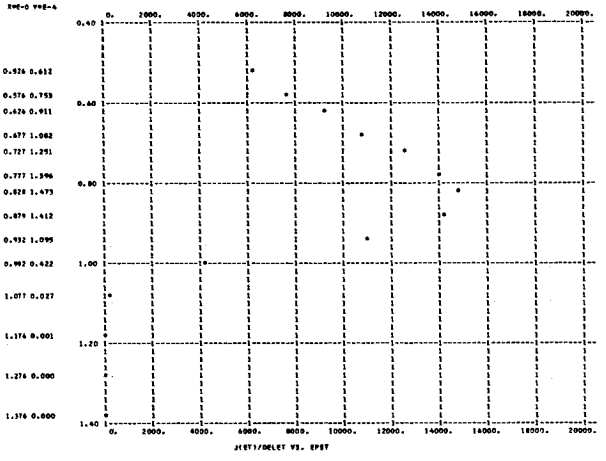
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 8.00 AMU = 1.00 EVMAX = 5.6554

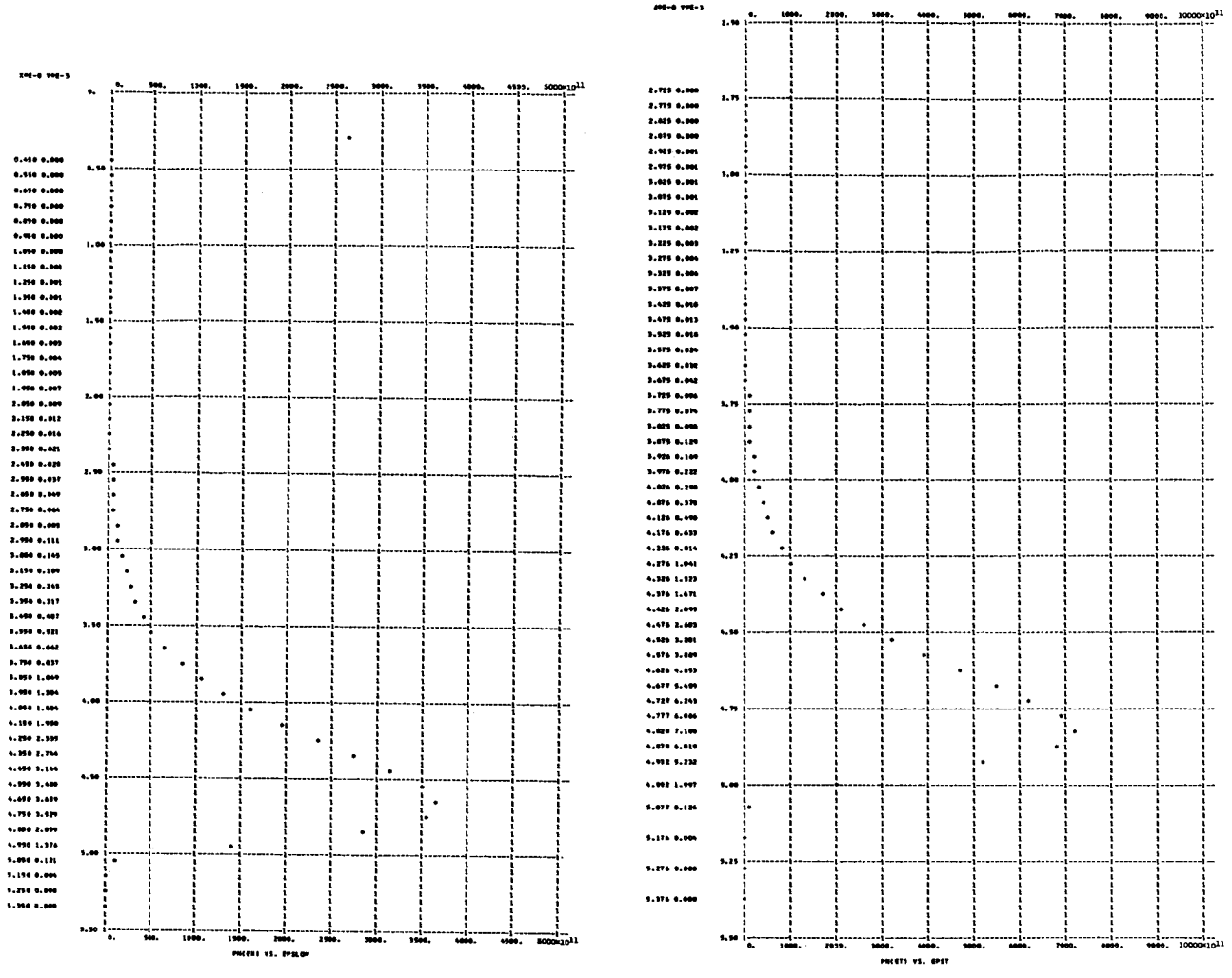
NEM = 0.45046996E 22 NEE = 0.99057558E 15 VXAV = 0.35014735E 08 KEXAV = 0.40860219E-00 KEXFL = 0.18315634E 08

J = 0.555650E 04 KETAV= 0.707330E 00 KETFL= 0.268033E 08 TZERO = 0.547219E 04 TO = 0.277558E 04

Figure 3. - Continued.


X=E-0 Y=E-3
0.050 3.868
0.150 3.775
0.250 4.574
0.350 5.437
0.450 6.302
0.550 7.093
0.650 7.496
0.750 7.308
0.850 5.983
0.950 2.908
1.050 0.299
1.150 0.008
1.250 0.000
1.350 0.000
0.
0.25
0.50
0.75
1.00
1.25
1.50
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
J(ES)/DELEX VS. EPSLON


X=E-0 Y=E-4
0.526 0.612
0.576 0.753
0.626 0.911
0.677 1.082
0.727 1.291
0.777 1.396
0.828 1.473
0.878 1.412
0.932 1.099
0.982 0.422
1.077 0.027
1.174 0.001
1.276 0.000
1.376 0.000
0.40
0.60
0.80
1.00
1.20
1.40
0. 2000. 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000. 20000.
J(ET)/DELET VS. EPST

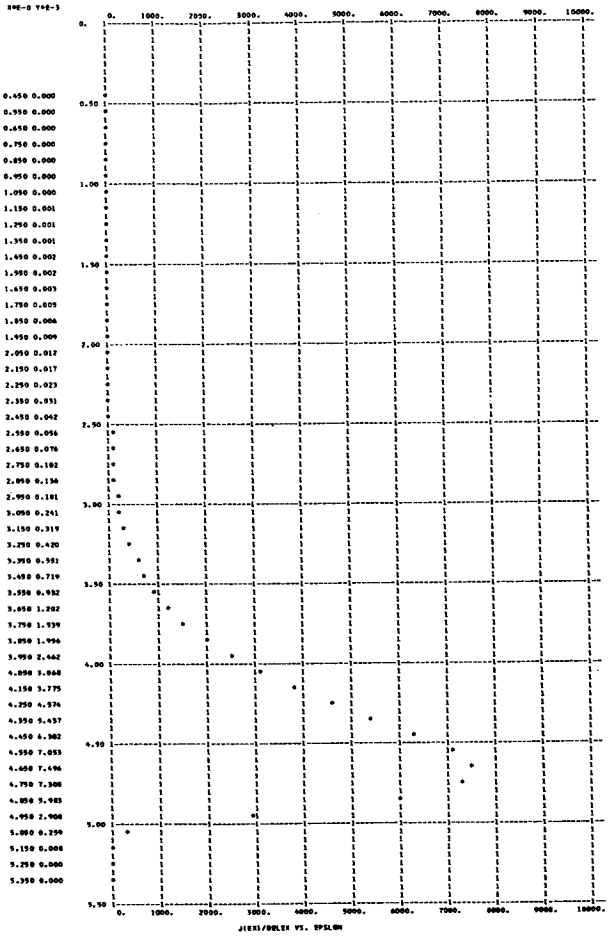


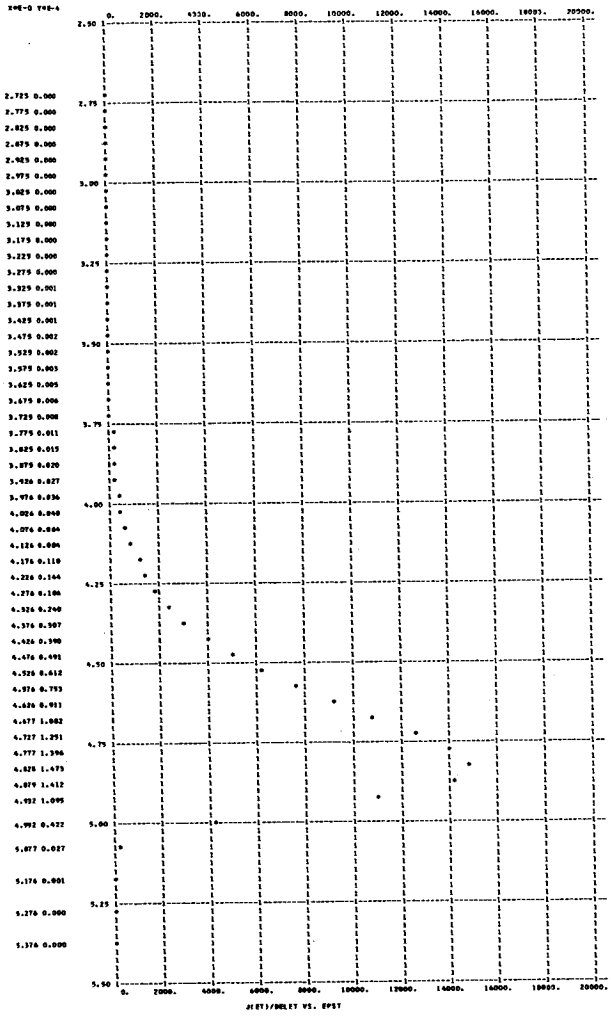
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 8.00 AMU = 5.00 EVMAX = 9.6554

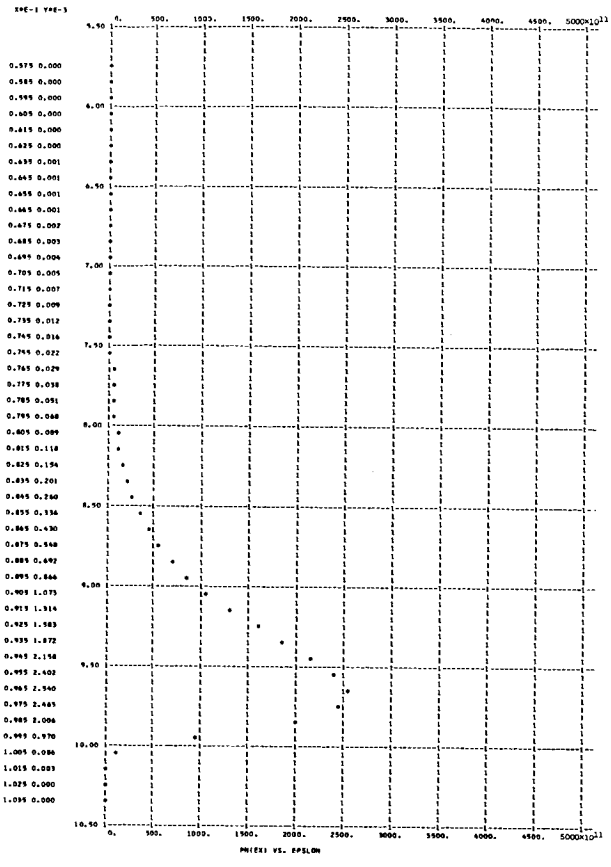
NEM = 0.50763609E 23 NEE = 0.32941803E 15 VXAV = 0.12358672E 09 KEXAV = 0.43554331E 01 KEXFL = 0.54136945E 09

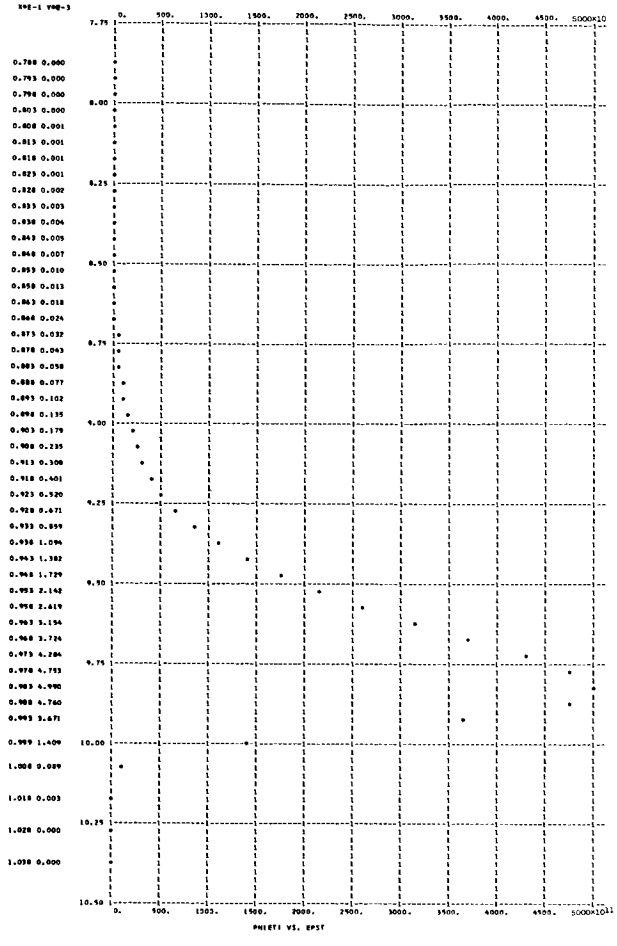
J = 0.652201E 04 KETAV= 0.468107E 01 KETFL= 0.580081E 09 TZERO = 0.362146E 05 TD = 0.262081E 04

Figure 3. - Continued.


X=E-0 Y=E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
0.
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
0.450 0.000
0.550 0.000
0.650 0.000
0.750 0.000
0.850 0.000
0.950 0.000
1.050 0.000
1.150 0.001
1.250 0.001
1.350 0.001
1.450 0.002
1.550 0.002
1.650 0.003
1.750 0.005
1.850 0.006
1.950 0.009
2.050 0.012
2.150 0.017
2.250 0.023
2.350 0.031
2.450 0.042
2.550 0.056
2.650 0.076
2.750 0.102
2.850 0.136
2.950 0.181
3.050 0.241
3.150 0.319
3.250 0.420
3.350 0.551
3.450 0.719
3.550 0.932
3.650 1.202
3.750 1.539
3.850 1.956
3.950 2.462
4.050 3.068
4.150 3.775
4.250 4.576
4.350 5.457
4.450 6.382
4.550 7.053
4.650 7.496
4.750 7.308
4.850 5.983
4.950 2.908
5.050 0.250
5.150 0.008
5.250 0.000
5.350 0.000
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
JIEXI/DELEX VS. DPSLON


X=E-0 Y=E-4
0. 2000. 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000. 20000.
2.50
2.75
3.00
3.25
3.50
3.75
4.00
4.25
4.50
4.75
5.00
5.25
5.50
2.725 0.000
2.775 0.000
2.825 0.000
2.875 0.000
2.925 0.000
2.975 0.000
3.025 0.000
3.075 0.000
3.125 0.000
3.175 0.000
3.225 0.000
3.275 0.000
3.325 0.001
3.375 0.001
3.425 0.001
3.475 0.002
3.525 0.002
3.575 0.003
3.625 0.005
3.675 0.006
3.725 0.008
3.775 0.011
3.825 0.015
3.875 0.020
3.926 0.027
3.976 0.036
4.026 0.048
4.076 0.064
4.126 0.084
4.176 0.110
4.226 0.144
4.276 0.186
4.326 0.240
4.376 0.307
4.426 0.390
4.476 0.491
4.526 0.612
4.576 0.753
4.626 0.911
4.677 1.082
4.727 1.251
4.777 1.396
4.826 1.473
4.879 1.412
4.932 1.095
4.982 0.622
5.027 0.227
5.176 0.001
5.276 0.000
5.376 0.000
0. 2000. 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000. 20000.
JIET/DELET VS. DPST



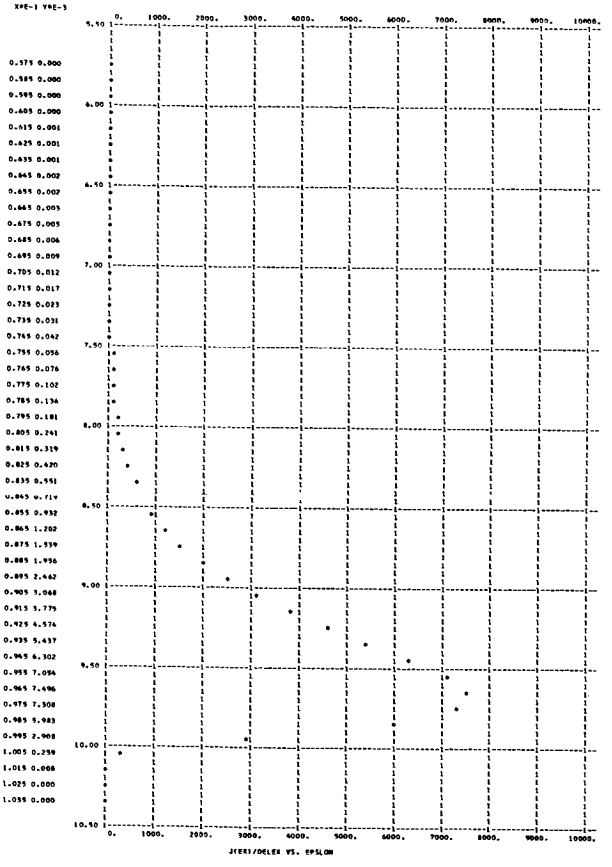


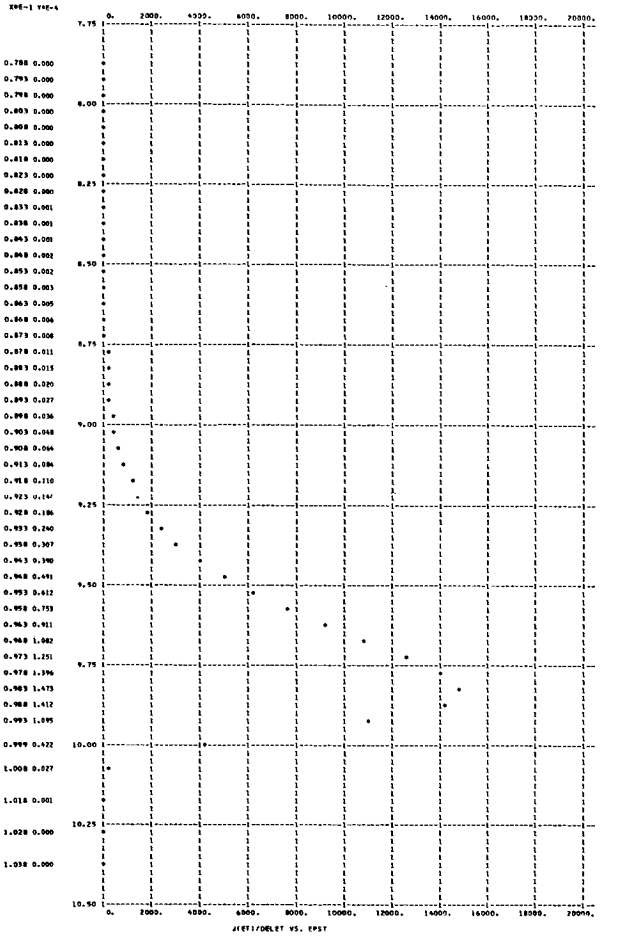
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 8.00 AMU = 10.00 EVMAX = 14.6554

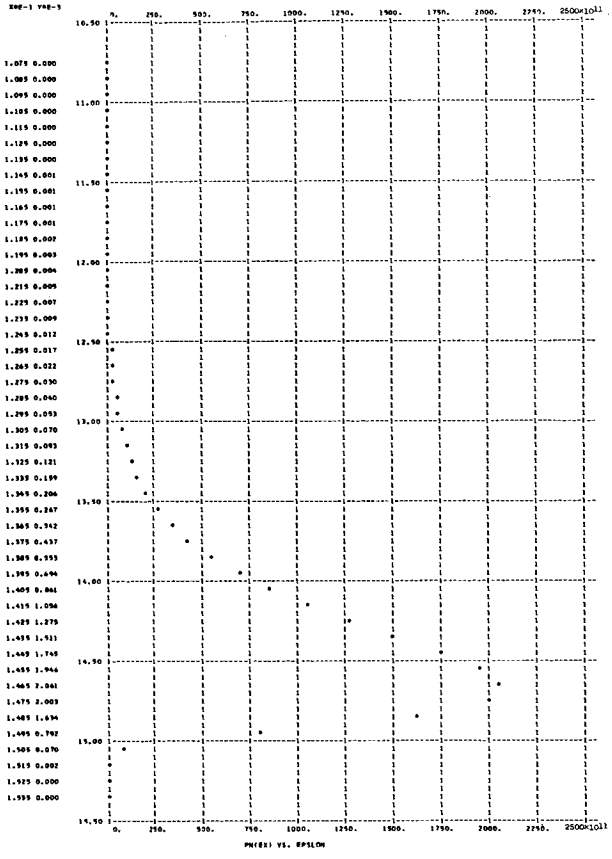
NEM = 0.14365808E 24 NEE = 0.22432020E 15 VXAV = 0.18148834E 09 KEXAV = 0.93697423E 01 KEXFL = 0.17024486E 10

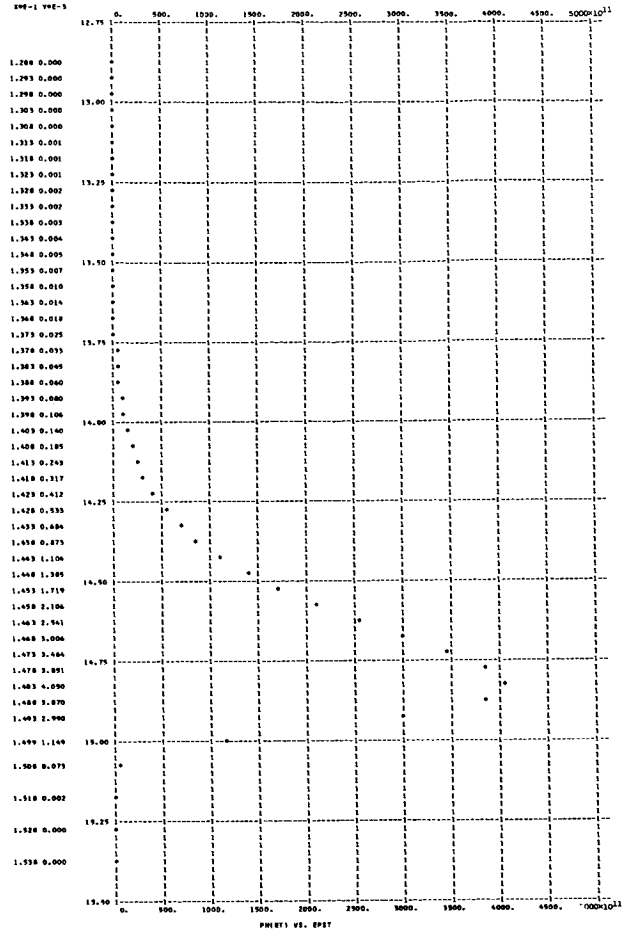
J = 0.652198E 04 KETAV= 0.968829E 01 KETFL= 0.175930E 10 TZERO = 0.749525E 05 TO = 0.250670E 04

Figure 3. - Continued.


XPE-1 YPE-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
0.575 0.000
0.585 0.000
0.595 0.000
0.605 0.000
0.615 0.001
0.625 0.001
0.635 0.001
0.645 0.002
0.655 0.002
0.665 0.003
0.675 0.005
0.685 0.006
0.695 0.009
0.705 0.012
0.715 0.017
0.725 0.023
0.735 0.031
0.745 0.042
0.755 0.056
0.765 0.076
0.775 0.102
0.785 0.136
0.795 0.181
0.805 0.241
0.815 0.319
0.825 0.420
0.835 0.551
0.845 0.714
0.855 0.932
0.865 1.202
0.875 1.539
0.885 1.956
0.895 2.462
0.905 3.068
0.915 3.775
0.925 4.574
0.935 5.437
0.945 6.302
0.955 7.054
0.965 7.496
0.975 7.508
0.985 5.983
0.995 2.908
1.005 0.259
1.015 0.008
1.025 0.000
1.035 0.000
JYEK1/DELEK VS. EPSLON


XPE-1 YPE-4
0. 2000. 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000. 20000.
7.75
8.00
8.25
8.50
8.75
9.00
9.25
9.50
9.75
10.00
10.25
10.50
0.788 0.000
0.793 0.000
0.798 0.000
0.803 0.000
0.808 0.000
0.813 0.000
0.818 0.000
0.823 0.000
0.828 0.000
0.833 0.001
0.838 0.001
0.843 0.001
0.848 0.001
0.853 0.002
0.858 0.003
0.863 0.005
0.868 0.006
0.873 0.008
0.878 0.011
0.883 0.015
0.888 0.020
0.893 0.027
0.898 0.036
0.903 0.048
0.908 0.064
0.913 0.084
0.918 0.110
0.923 0.144
0.928 0.186
0.933 0.240
0.938 0.307
0.943 0.390
0.948 0.491
0.953 0.612
0.958 0.753
0.963 0.911
0.968 1.082
0.973 1.251
0.978 1.396
0.983 1.473
0.988 1.412
0.993 1.095
0.998 0.422
1.008 0.027
1.018 0.001
1.028 0.000
1.038 0.000
JYET1/DELET VS. EPST



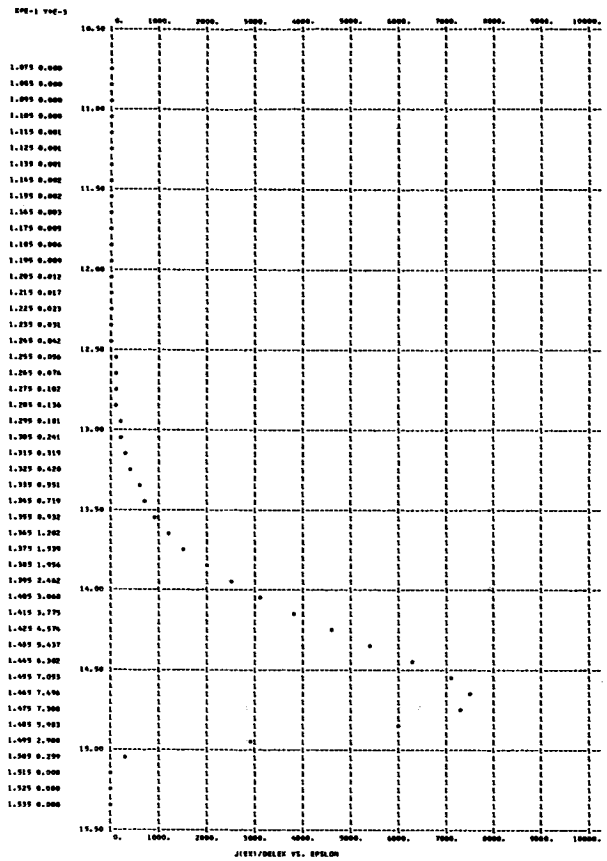


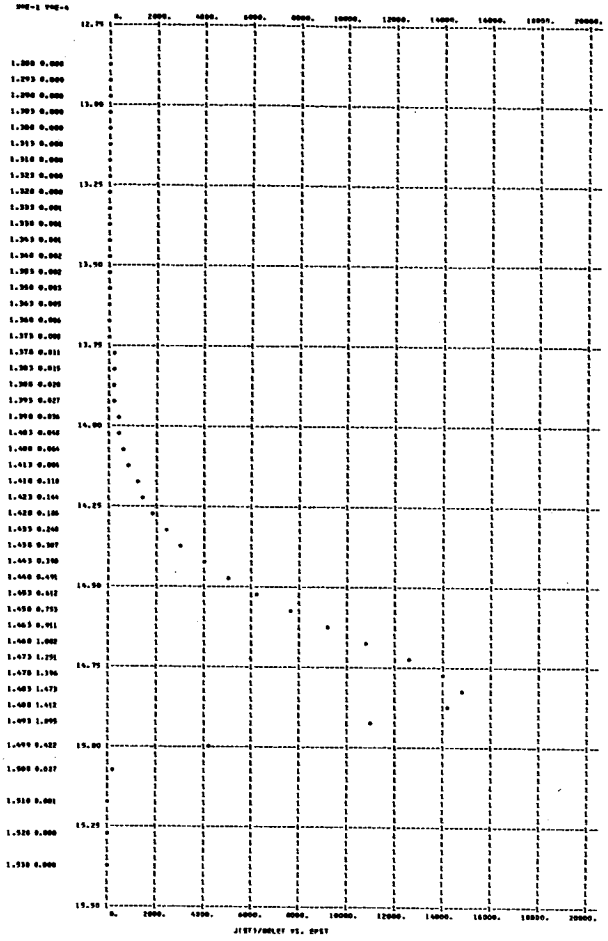
T = 0.30000000E 03 E = 0.10000002E 09 PHI = 8.00 AMU = 15.00 EVMAX = 19.6554

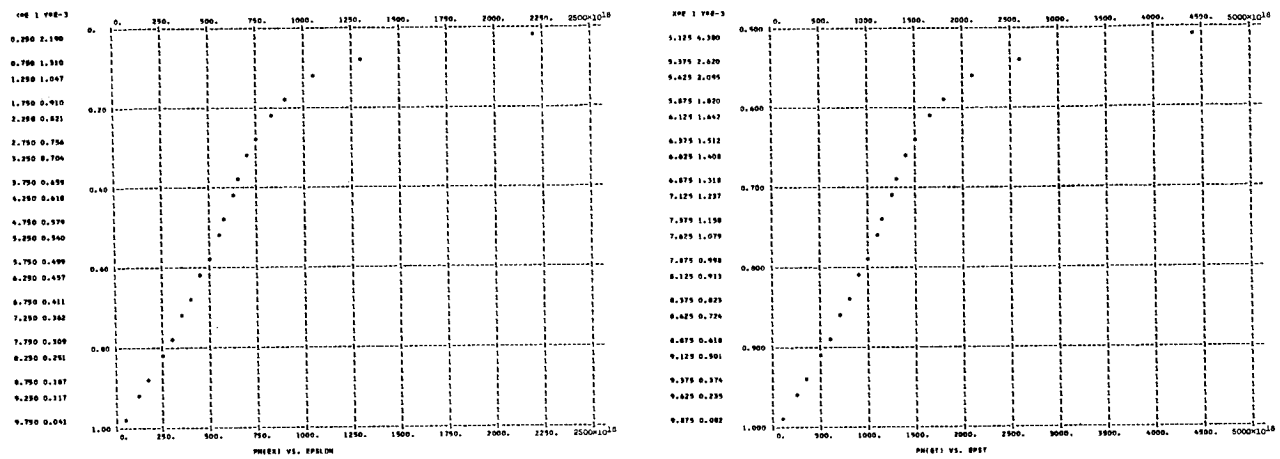
NEM = 0.26395249E 24 NEE = 0.18108000E 15 VXAV = 0.22482371E 09 KEXAV = 0.14373612E 02 KEXFL = 0.32330732E 10

J = 0.652191E 04 KETAV= 0.146902E 02 KETFL= 0.330350E 10 TZERO = 0.113650E 06 TD = 0.247647E 04

Figure 3. - Continued.





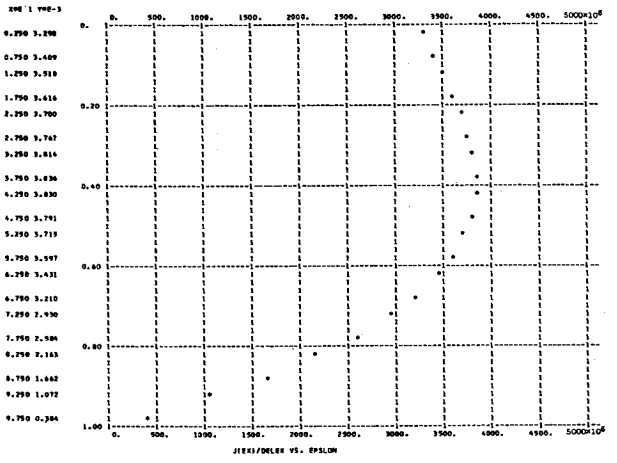


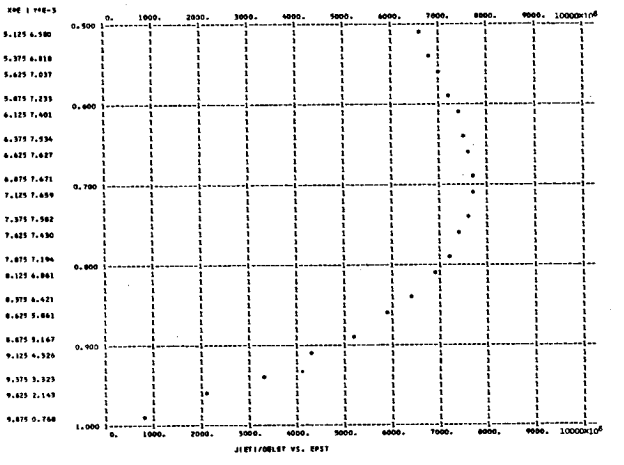
T = 0. E = 0.10000002E 09 PHI = 2.00 AMU = 1.00 EVMAX = 1.0053

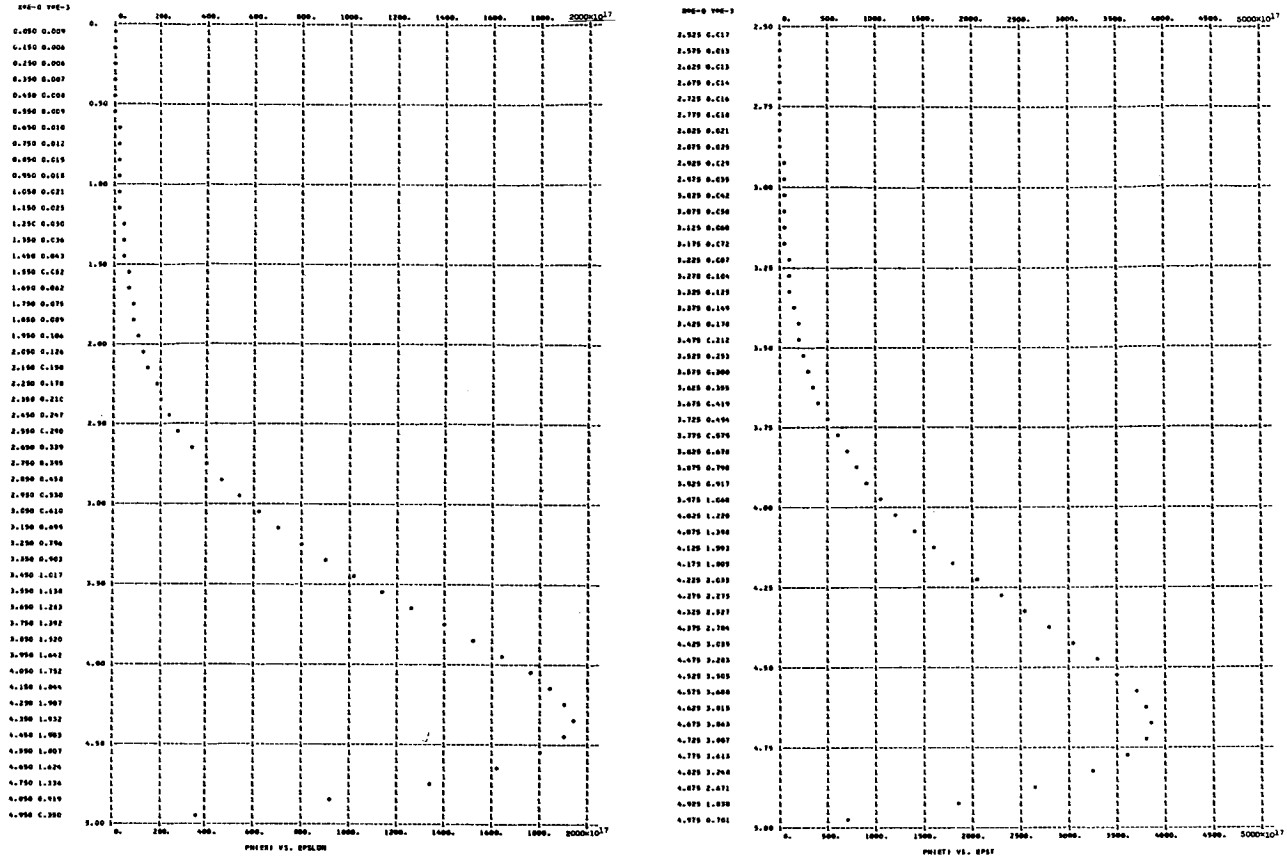
NEM = 0.45291001E 22 NEE = 0.68535616E 21 VXAV = 0.28590067E 08 KEXAV = 0.29403999E-00 KEXFL = 0.12066178E 08

J = 0.313902E 10 KETAV= 0.647020E 00 KETFL= 0.203281E 08 TZERO = 0.500561E 04 TD = 0.320779E 04

Figure 3. - Continued.


0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000X10^6
0.20
0.40
0.60
0.80
1.00
JIEXI/DELEX VS. EPSLON


0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000X10^6
0.500
0.600
0.700
0.800
0.900
1.000
JIEYI/DELEY VS. EPSY

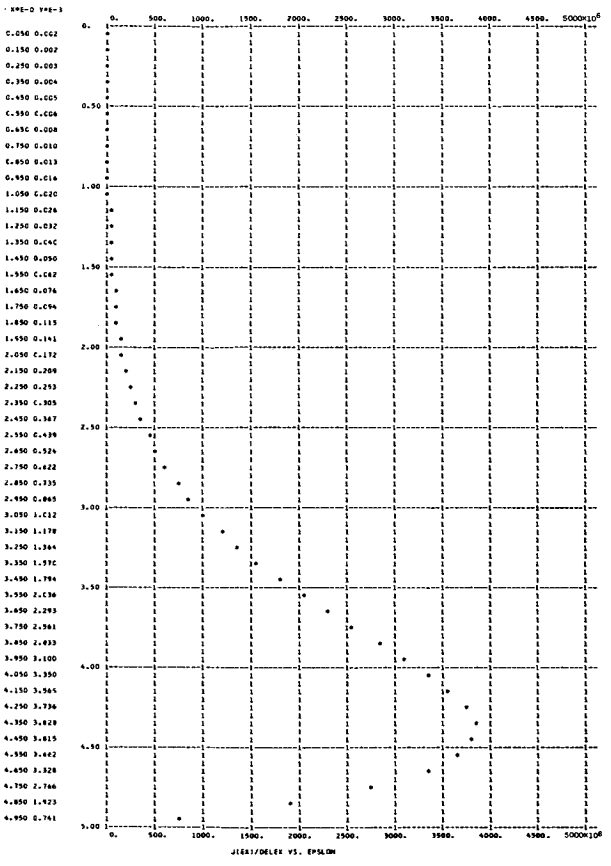


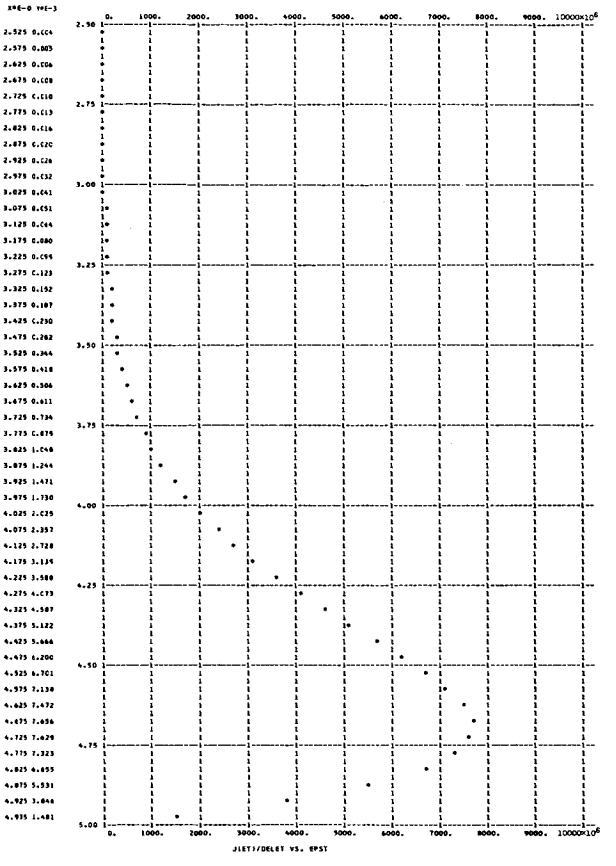
T = 0. E = 0.10000002E 09 PHI = 2.00 AMU = 5.00 EVMAX = 5.0053

NEM = 0.50762521E 23 NEE = 0.29919977E 21 VXAV = 0.11616022E 09 KEXAV = 0.38784149E 01 KEXFL = 0.45936599E 09

J = 0.556777E 10 KETAV= 0.443921E 01 KETFL= 0.520084E 09 TZERO = 0.343435E 05 TD = 0.466576E 04

Figure 3. - Continued.


X*E-0 Y*E-1
0. 500. 1000. 1500. 2000. 2500. 3000. 3500. 4000. 4500. 5000X10^6
0.050 0.CC2
0.150 0.002
0.250 0.003
0.350 0.004
0.450 0.CC5
0.550 0.CC6
0.650 0.008
0.750 0.010
0.850 0.013
0.950 0.016
1.050 0.020
1.150 0.026
1.250 0.032
1.350 0.04C
1.450 0.050
1.550 0.062
1.650 0.074
1.750 0.094
1.850 0.115
1.950 0.141
2.050 0.172
2.150 0.209
2.250 0.253
2.350 0.305
2.450 0.367
2.550 0.439
2.650 0.524
2.750 0.622
2.850 0.735
2.950 0.865
3.050 1.C12
3.150 1.178
3.250 1.364
3.350 1.57C
3.450 1.794
3.550 2.C36
3.650 2.293
3.750 2.561
3.850 2.833
3.950 3.100
4.050 3.350
4.150 3.565
4.250 3.736
4.350 3.828
4.450 3.815
4.550 3.662
4.650 3.328
4.750 2.766
4.850 1.923
4.950 0.761
JIEX1/DELEX VS. EPSLON


X*E-0 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000X10^6
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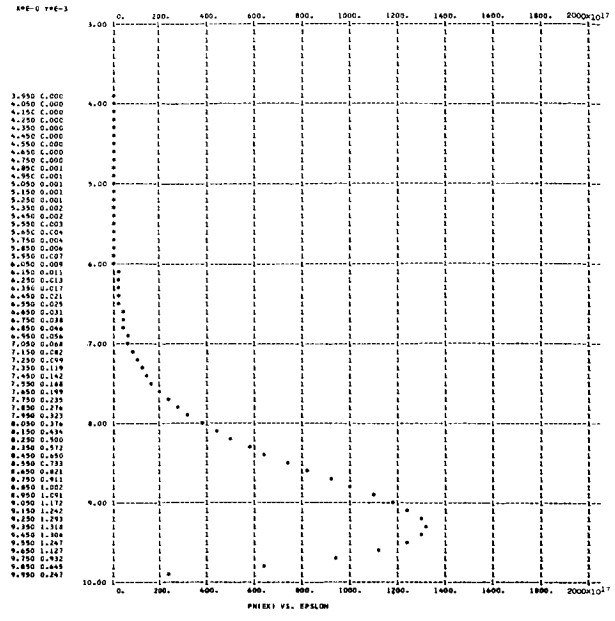
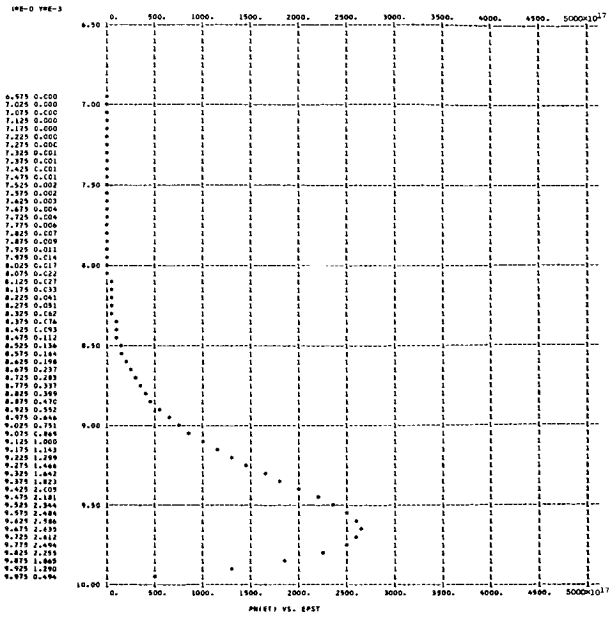
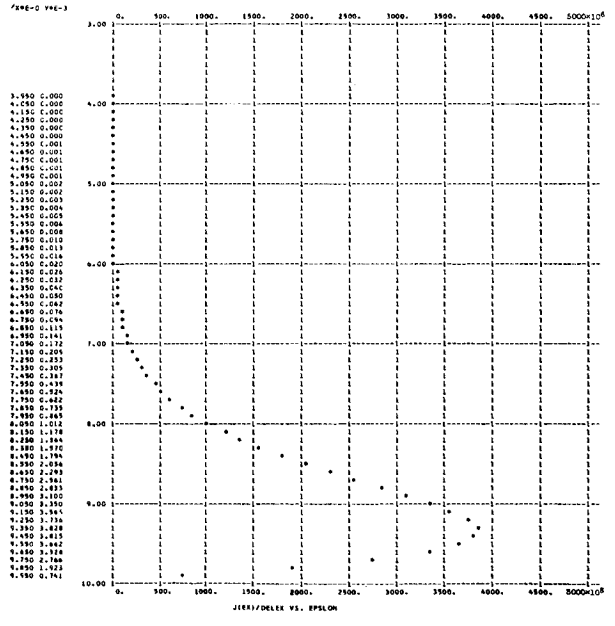
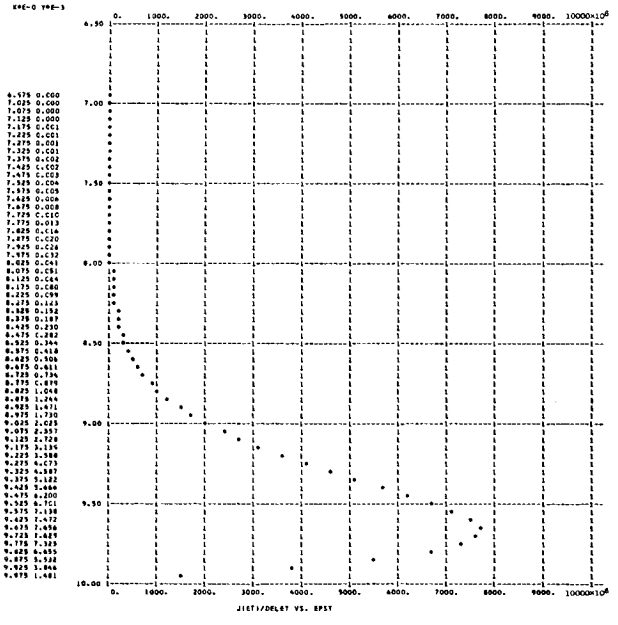
2.575 0.005
2.625 0.CC6
2.675 0.CC8
2.725 C.C10
2.775 0.C13
2.825 0.C16
2.875 C.C2C
2.925 0.C26
2.975 0.C32
3.025 0.041
3.075 0.C51
3.125 0.C64
3.175 0.080
3.225 0.C96
3.275 C.123
3.325 0.152
3.375 0.187
3.425 C.230
3.475 C.282
3.525 0.344
3.575 0.418
3.625 0.506
3.675 0.611
3.725 0.734
3.775 C.879
3.825 1.C48
3.875 1.244
3.925 1.471
3.975 1.730
4.025 2.C25
4.075 2.357
4.125 2.728
4.175 3.134
4.225 3.588
4.275 4.C93
4.325 4.587
4.375 5.122
4.425 5.666
4.475 6.200
4.525 6.701
4.575 7.138
4.625 7.472
4.675 7.656
4.725 7.629
4.775 7.323
4.825 6.655
4.875 5.531
4.925 3.846
4.975 1.481
JIET1/DELET VS. EPST







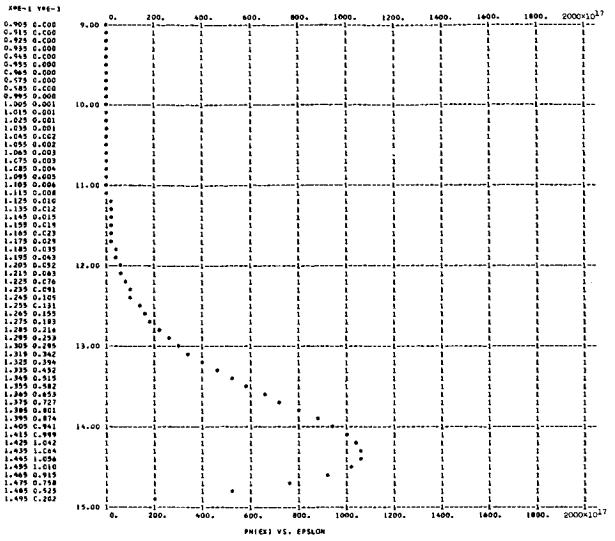


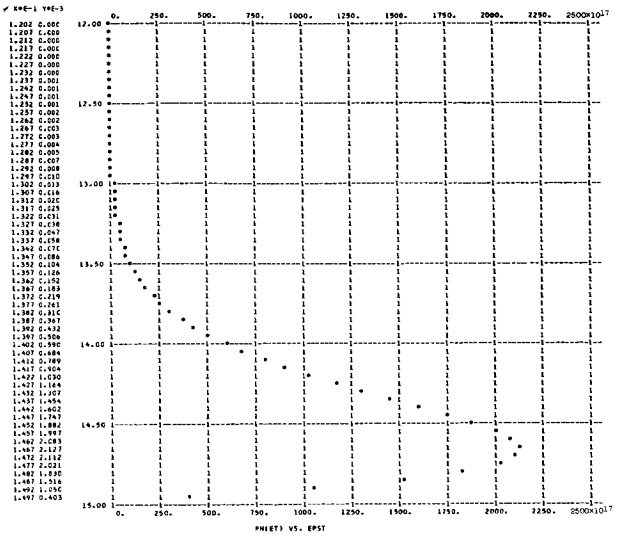
T = 0. E = 0.10000002E 09 PHI = 2.00 AMU = 10.00 EVMAX = 10.0053

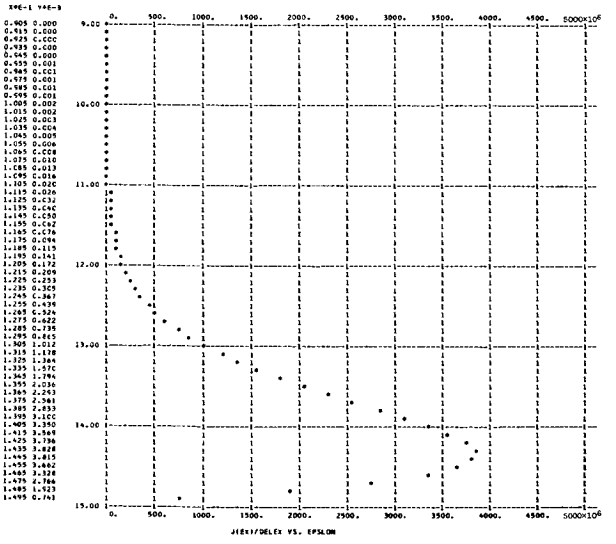
NEM = 0.14365730E 24 NEE = 0.19630870E 21 VXAV = 0.17705662E 09 KEXAV = 0.89266542E 01 KEXFL = 0.15853967E 10

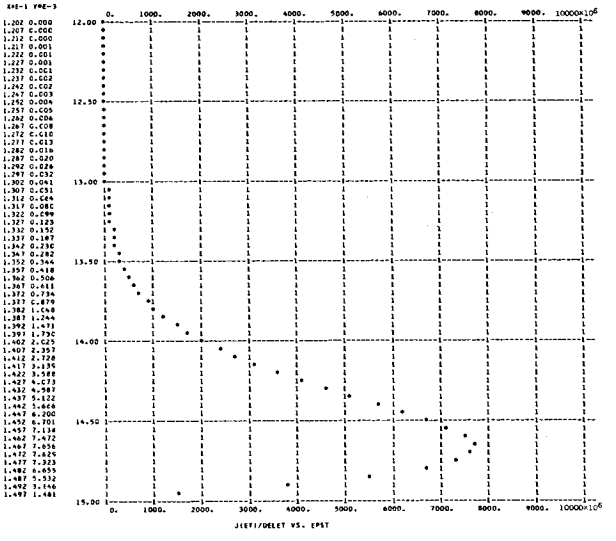
J = 0.556819E 10 KETAV= 0.946333E 01 KETFL= 0.167798E 10 TZERO = 0.732121E 05 TD = 0.426116E 04

Figure 3. - Continued.







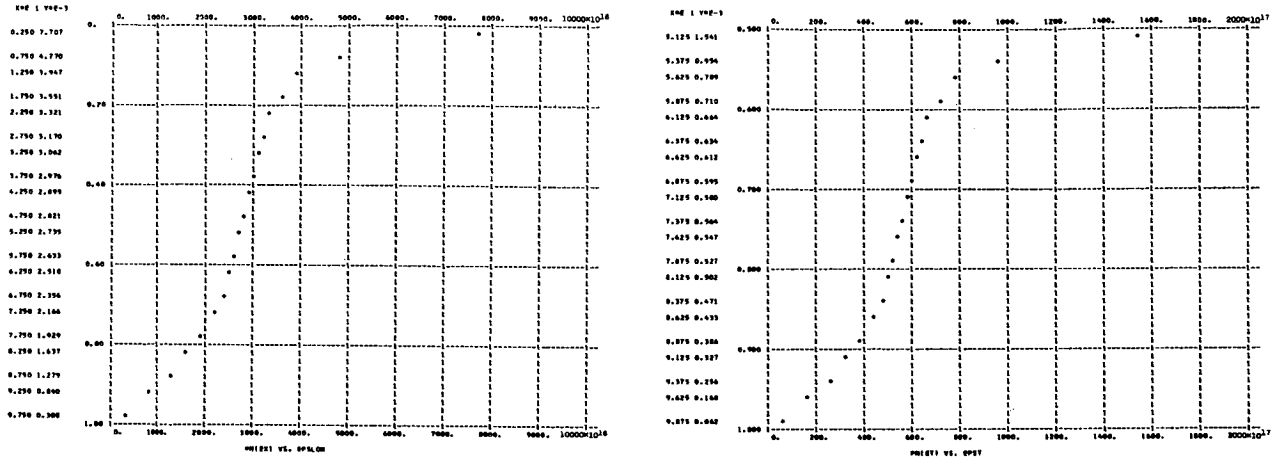


T = 0. E = 0.10000002E 09 PHI = 2.00 AMU = 15.00 EVMAX = 15.0053

NEM = 0.26395186E 24 NEE = 0.157C3209E 21 VXAV = 0.22134113E 09 KEXAV = 0.13937075E 02 KEXFL = 0.30886336E 10

J = 0.556818E 1C KETAV= 0.144685E 02 KETFL= 0.320438E 10 TZERO = 0.111934E 06 TD = 0.417877E 04

Figure 3. - Continued.

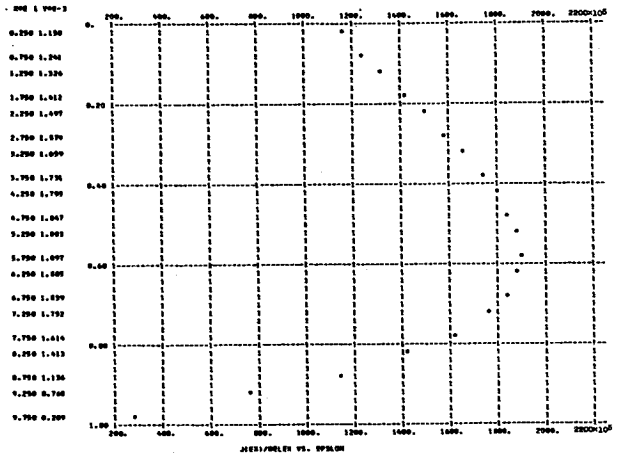


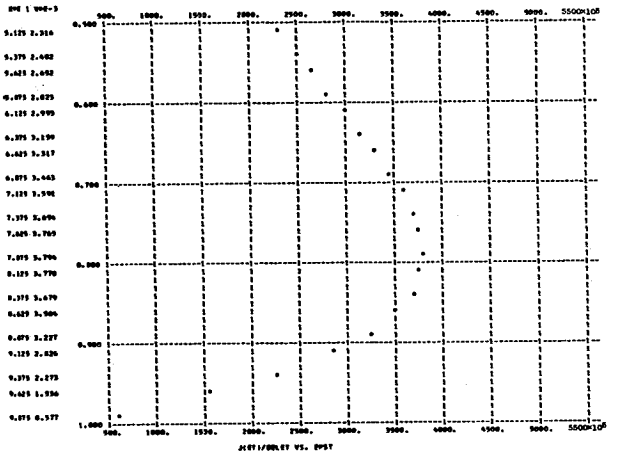
T = 0. E = 0.10000002E 09 PHI = 4.00 AMU = 1.00 EVMAX = 2.1054

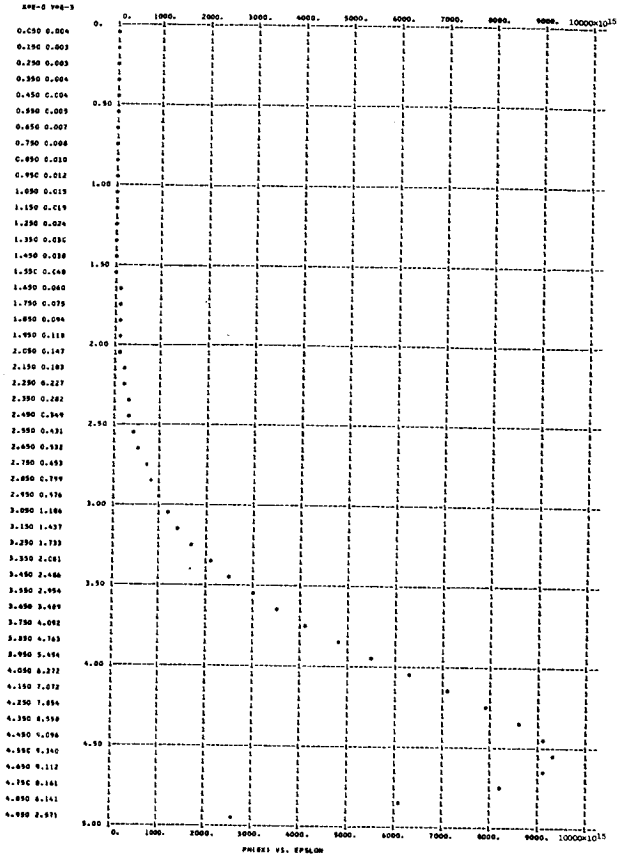
NEM = 0.45291001E 22 NEE = 0.29962700E 20 VXAV = 0.31498434E 08 KEXAV = 0.34682742E-00 KEXFL = 0.14921630E 08

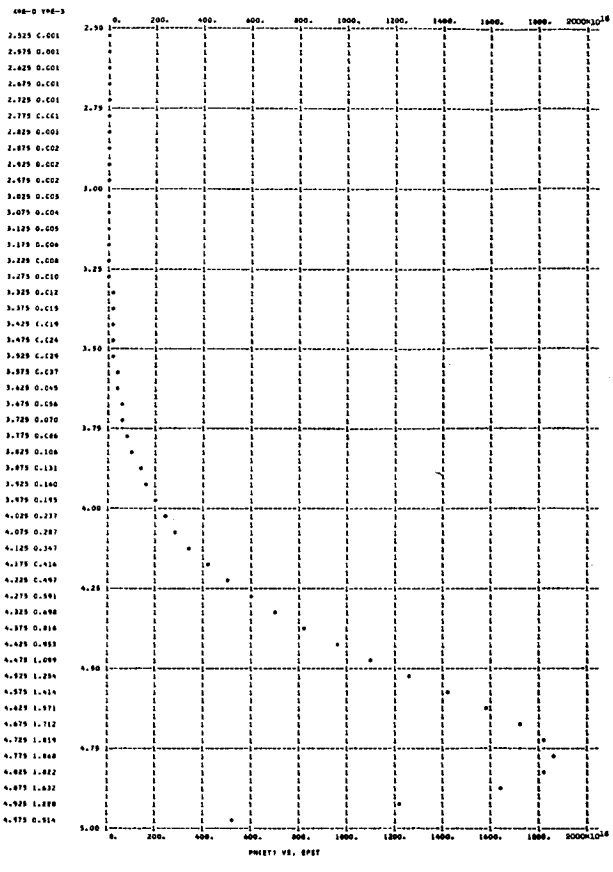
J = 0.151193E 09 KETAV= 0.673414E 00 KETFL= 0.232100E 08 TZERO = 0.520980E 04 TO = 0.302760E 04

Figure 3. - Continued.







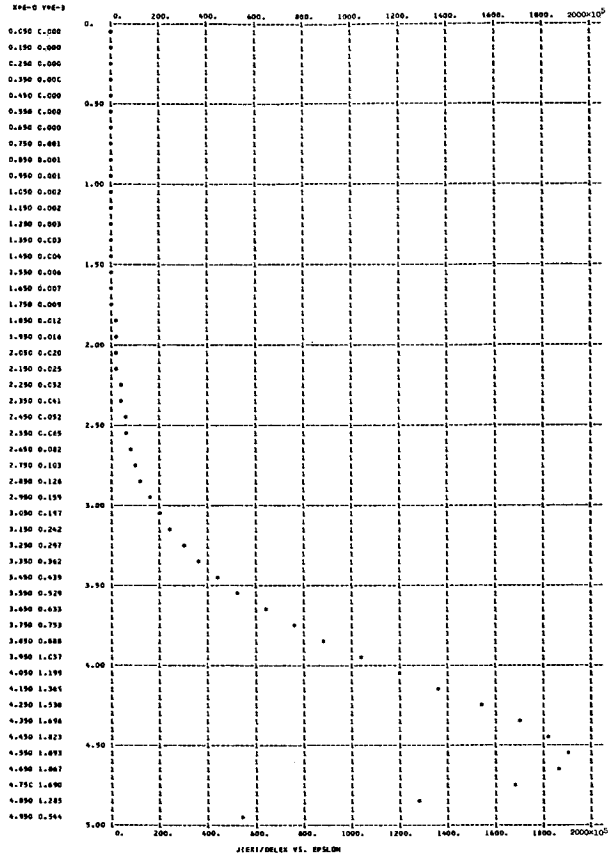


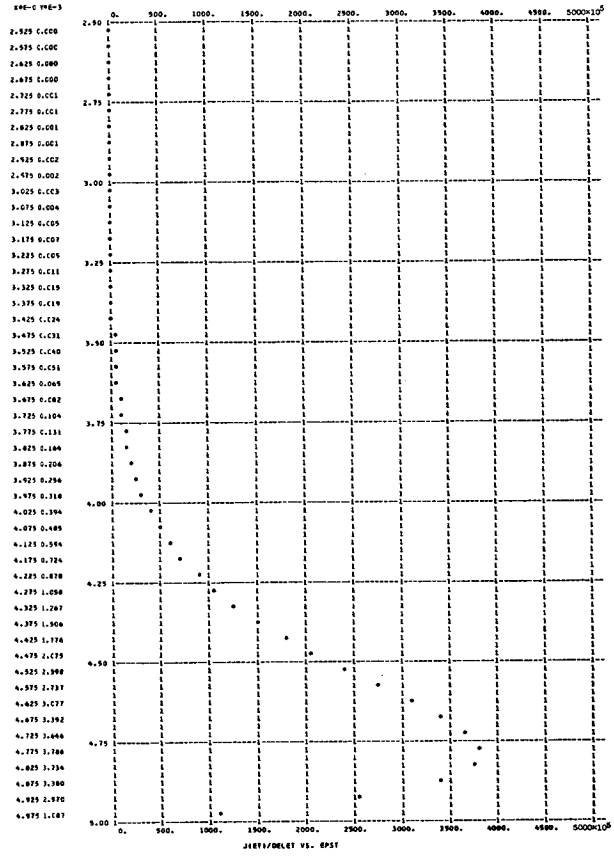
T = 0. E = 0.10000002E 09 PHI = 4.00 AMU = 5.00 EVMAX = 6.1054

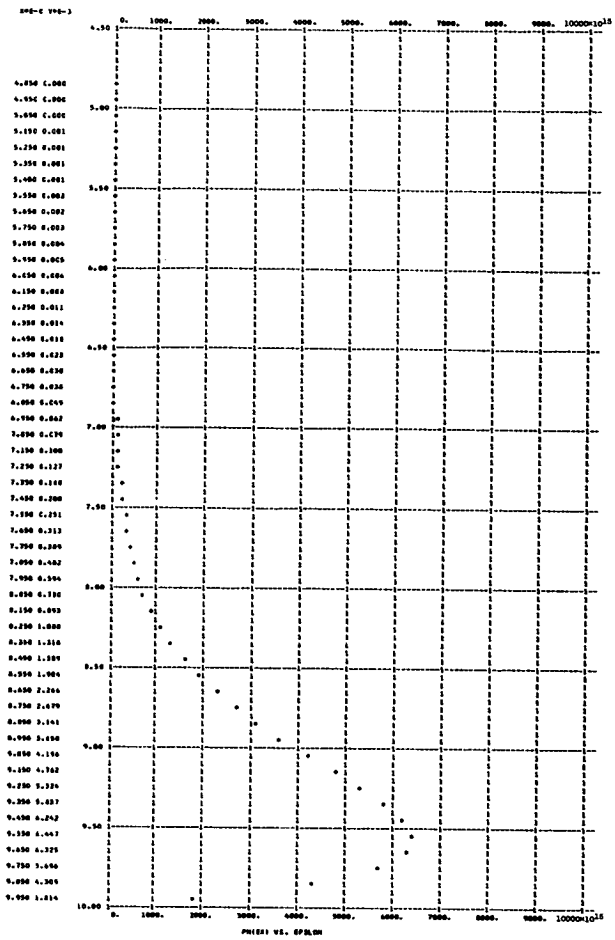
NEM = 0.50762521E 23 NEE = 0.10905816E 20 VXAV = 0.12053007E 09 KEXAV = 0.41538378E 01 KEXFL = 0.50597040E 09

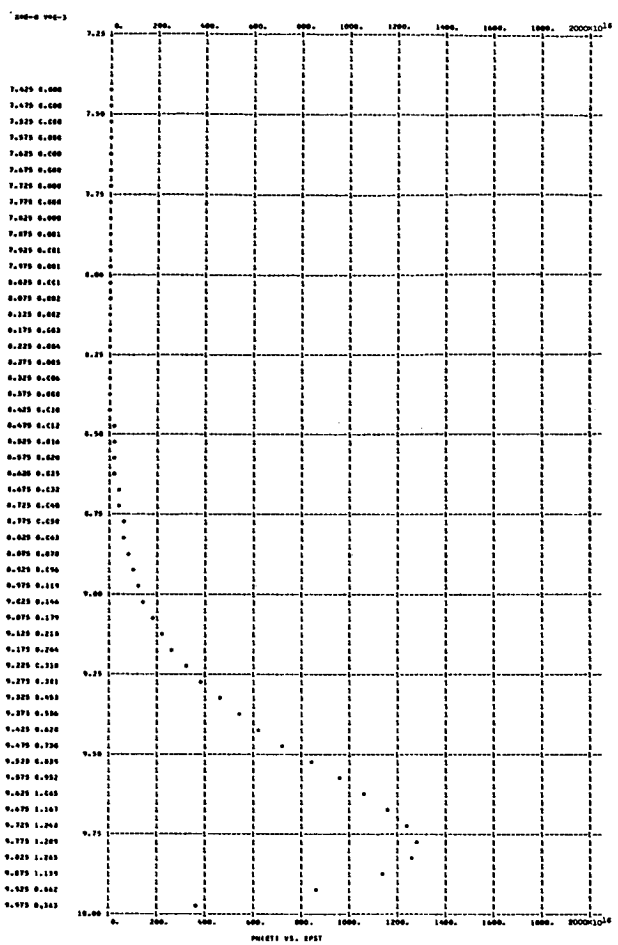
J = 0.21057 9E 09 KETAV= 0.457692E 01 KETFL= 0.554310E 09 TZERO = 0.354089E 05 TD = 0.345625E 04

Figure 3. - Continued.


J(EST)/DELEST VS. EPSLON


J(EST)/DELET VS. EPST



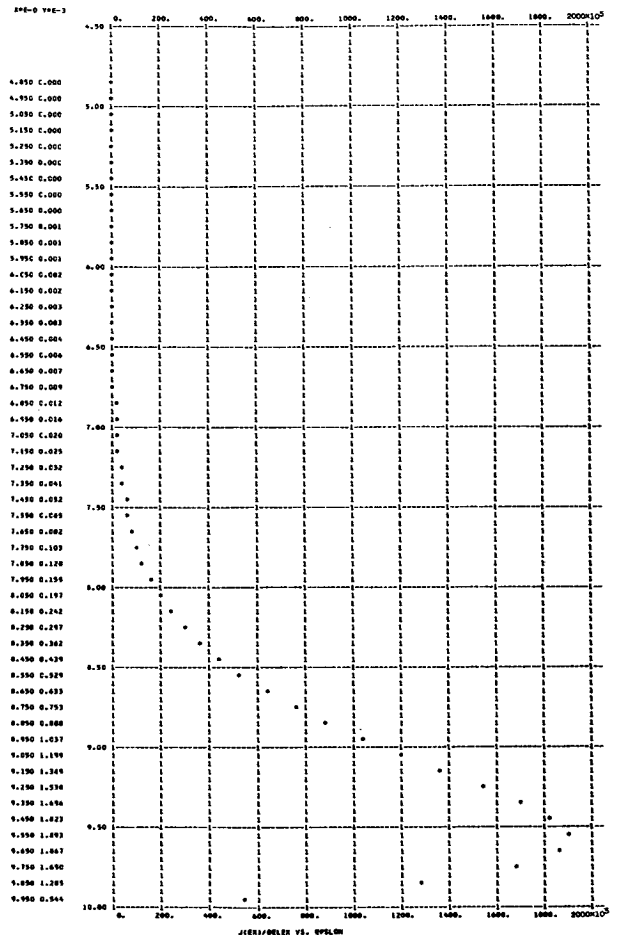


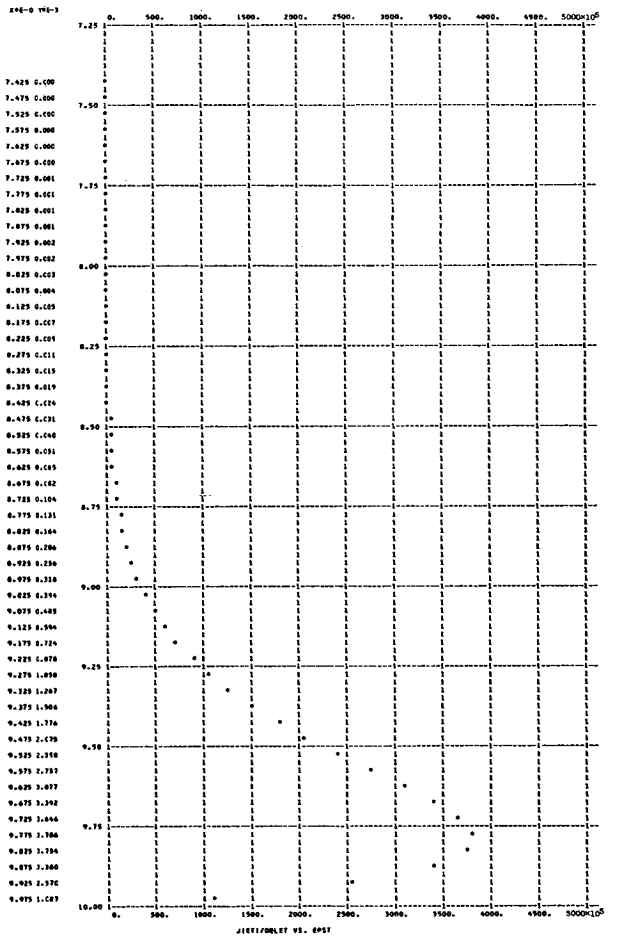
T = 0. E = 0.10000002E 09 PHI = 4.00 AMU = 10.00 EVMAX = 11.1054

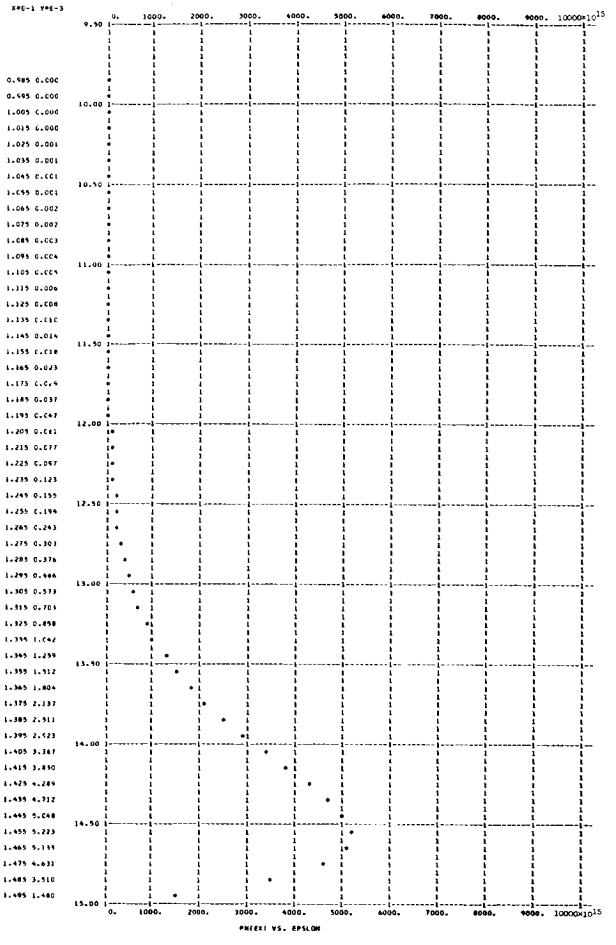
NEM = 0.14365730E 24 NEE = 0.73185502E 19 VXAV = 0.17960844E 09 KEXAV = 0.91802670E 01 KEXFL = 0.16520084E 10

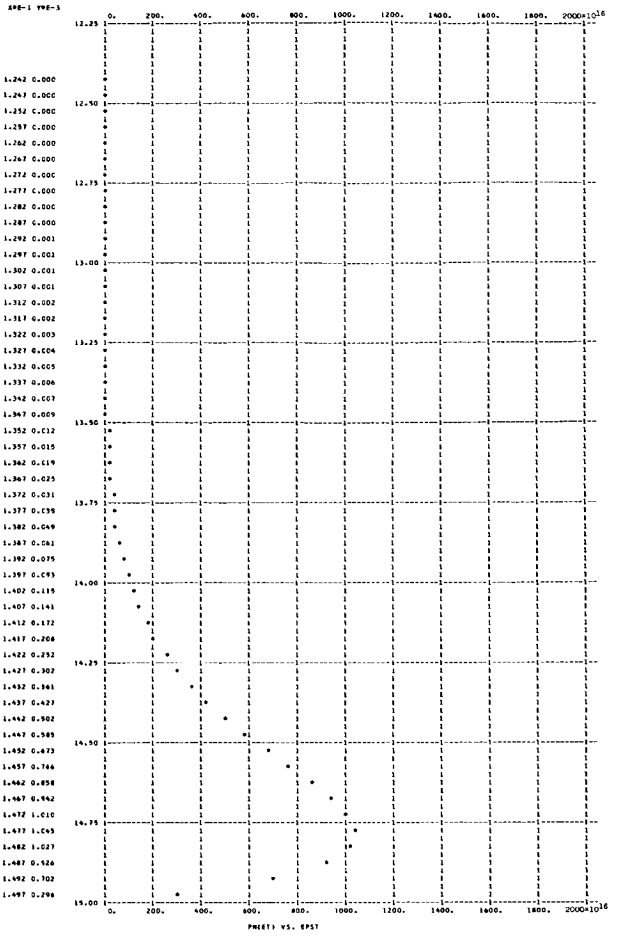
J = 0.210579E 09 KETAV= 0.959013E 01 KETFL= 0.172405E 10 TZERO = 0.741931E 05 TD = 0.324036E 04

Figure 3. - Continued.







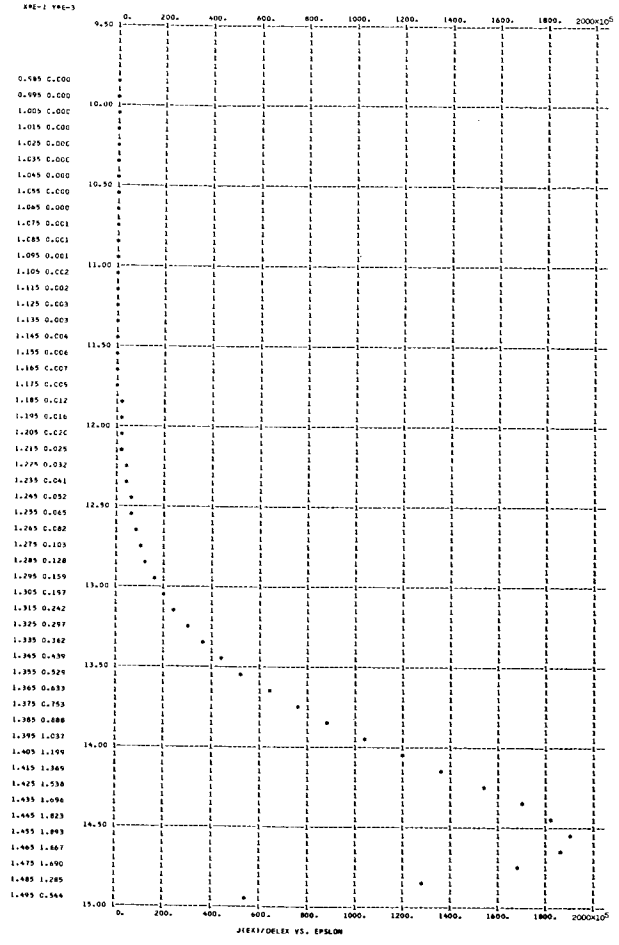


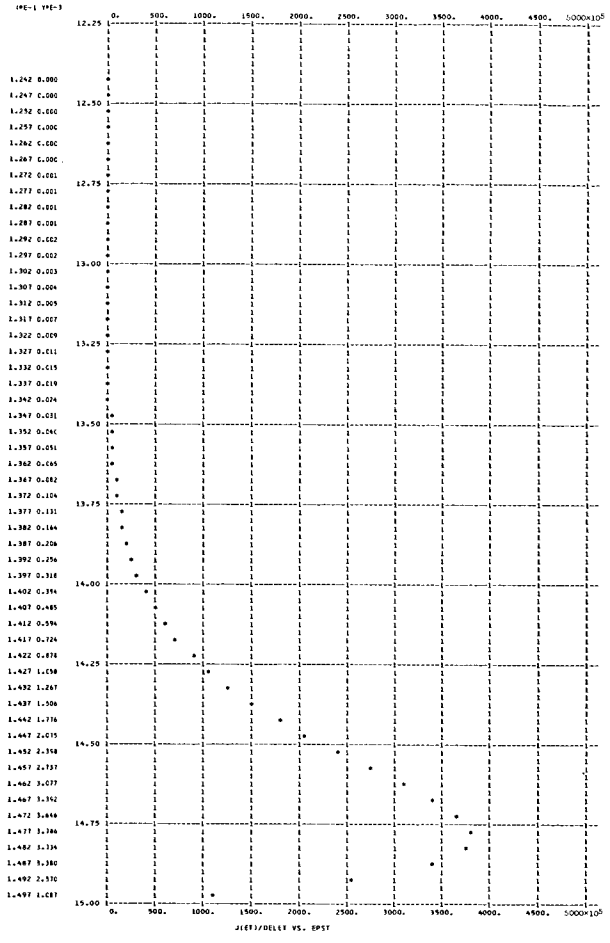
T = 0. E = 0.10000002E 09 PHI = 4.00 AMU = 15.00 EVMAX = 16.1054

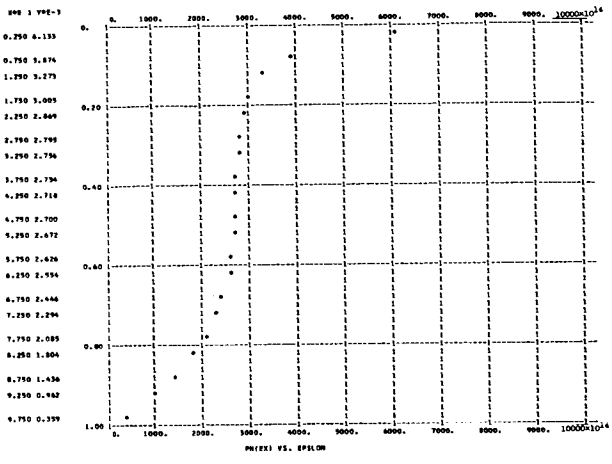
NEM = 0.26395186E 24 NEE = 0.58854893E 19 VXAV = 0.22334029E 09 KEXAV = 0.14186750E 02 KEXFL = 0.31709483E 10

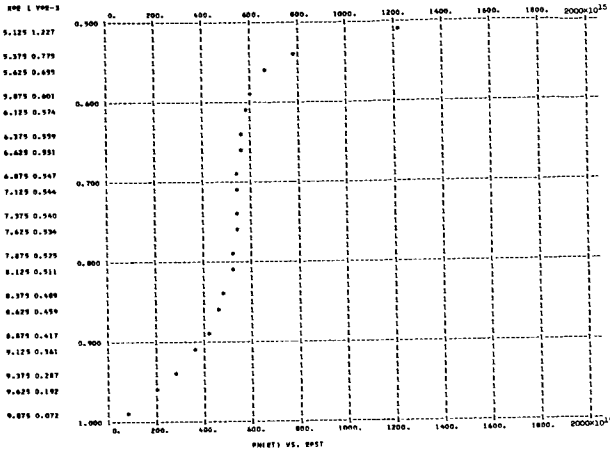
J = 0.210578E C9 KETAV= 0.145934E 02 KETFL= 0.326053E 10 TZERO = 0.112900E 06 TD = 0.318927E 04

Figure 3. - Continued.


XPE-1 YPE-3
0.
200.
400.
600.
800.
1000.
1200.
1400.
1600.
1800.
2000×10^5
9.50
10.00
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
J(EXI/DELEX VS. EPSLON


(PE-1 YPE-3
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000×10^5
12.25
12.50
12.75
13.00
13.25
13.50
13.75
14.00
14.25
14.50
14.75
15.00
J(EI)/DELEY VS. EPSY



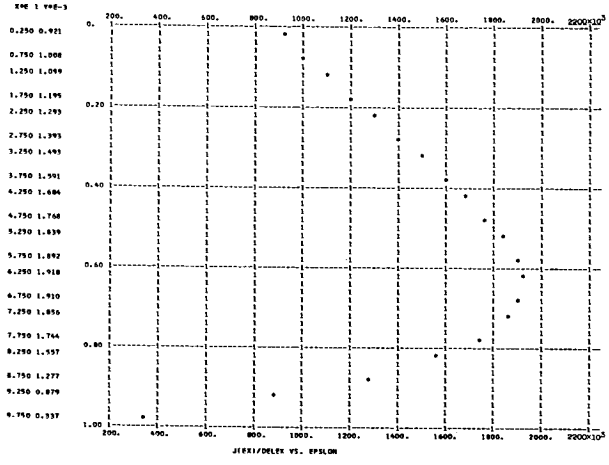


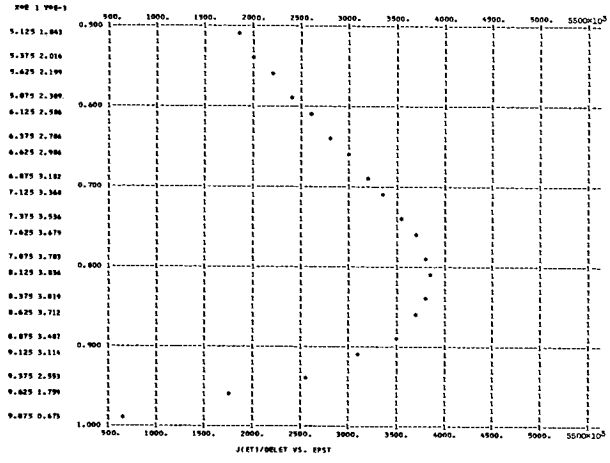
T = 0. E = 0.10000002E 09 PHI = 6.00 AMU = 1.00 EVMAX = 3.8054

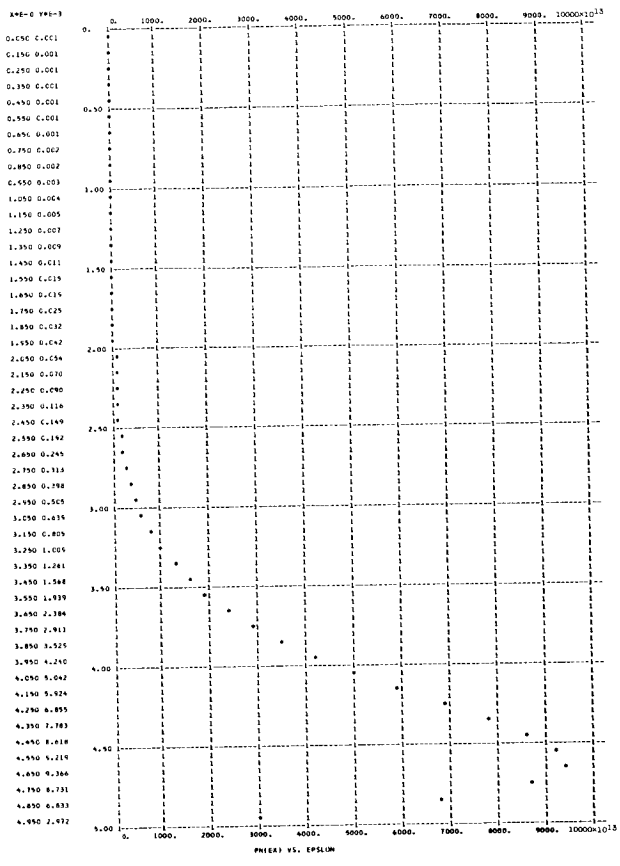
NEM = 0.45291001E 22 NEE = 0.27367434E 18 VXAV = 0.33149175E 08 KEXAV = 0.37733627E-00 KEXFL = 0.16597028E 08

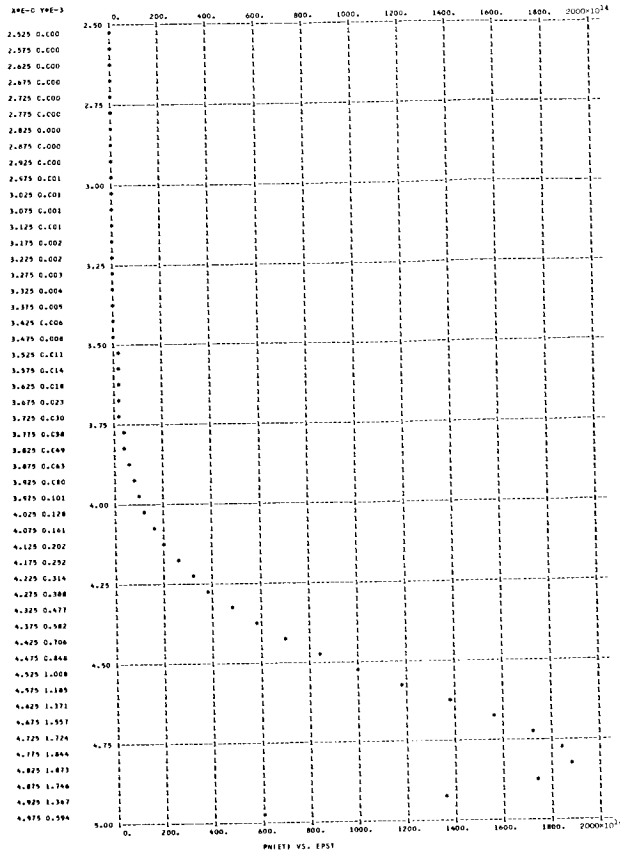
J = 0.145335E 07 KETAV= 0.688668E 00 KETFL= 0.248731E 08 TZERO = 0.532781E 04 TD = 0.291090E 04

Figure 3. - Continued.


J(EXI/DELEX VS. EPSLON


J(ETI/DELET VS. EPST



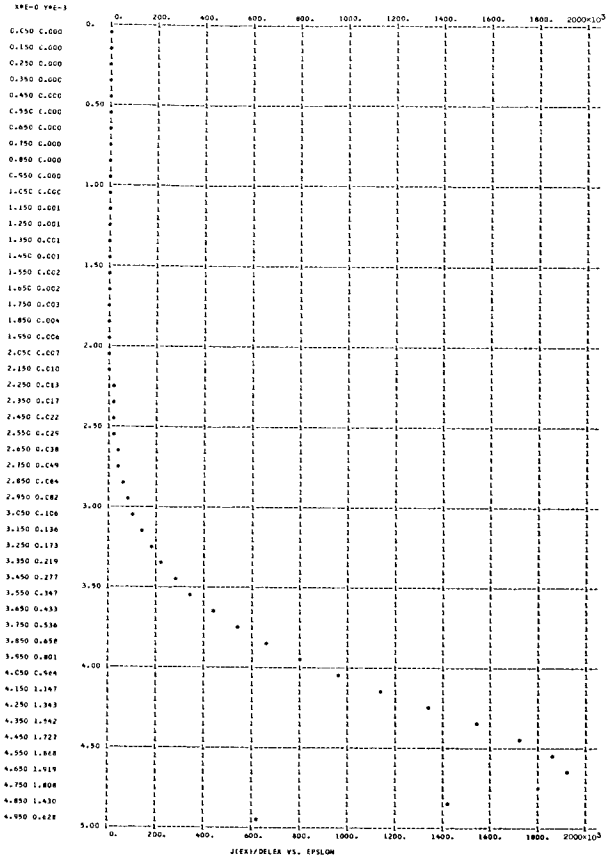


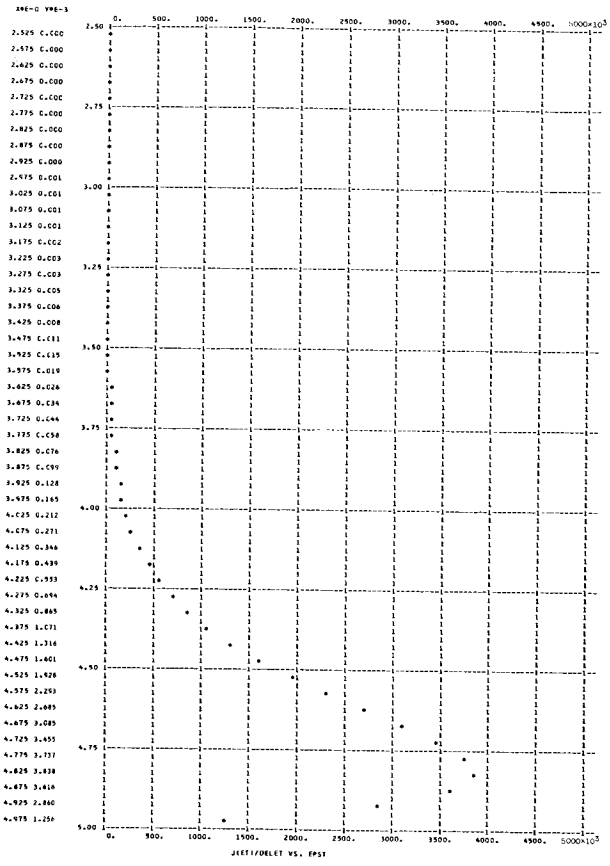
T = 0. E = 0.10000002E 09 PHI = 6.00 AMU = 5.00 EVMAX = 7.8054

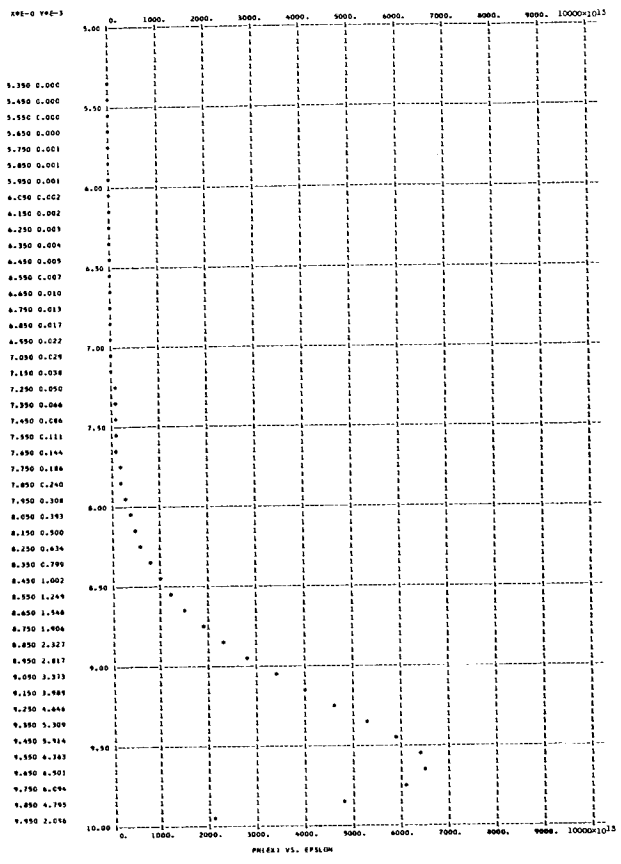
NEM = 0.50762521E 23 NEE = 0.93943480E 17 VXAV = 0.12235564E 09 KEXAV = 0.42730238E 01 KEXFL = 0.52671325E 09

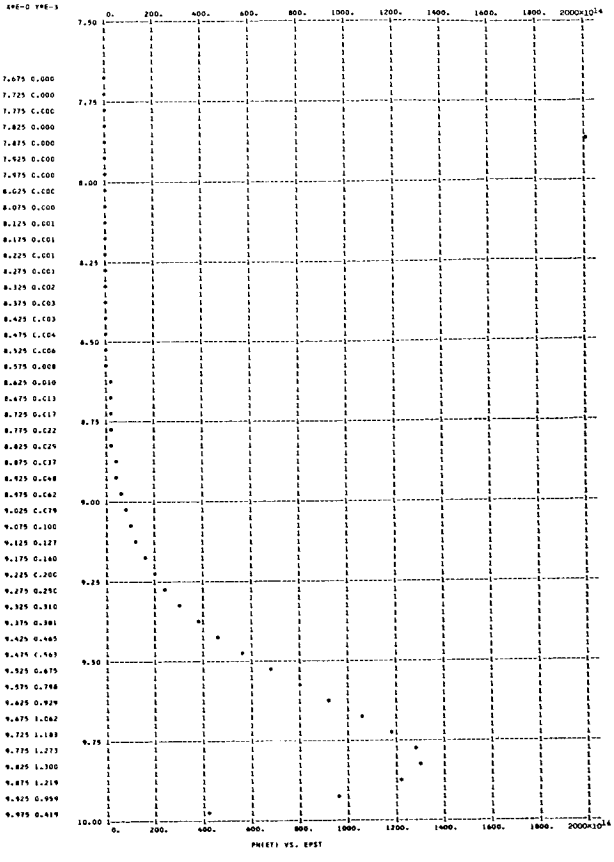
J = 0.184142E C7 KETAV= 0.463651E 01 KETFL= 0.569246E 09 TZERO = 0.358699E 05 TD = 0.294203E 04

Figure 3. - Continued.


JEXX/DELEX VS. EPSLON


JEET/DELET VS. EPST



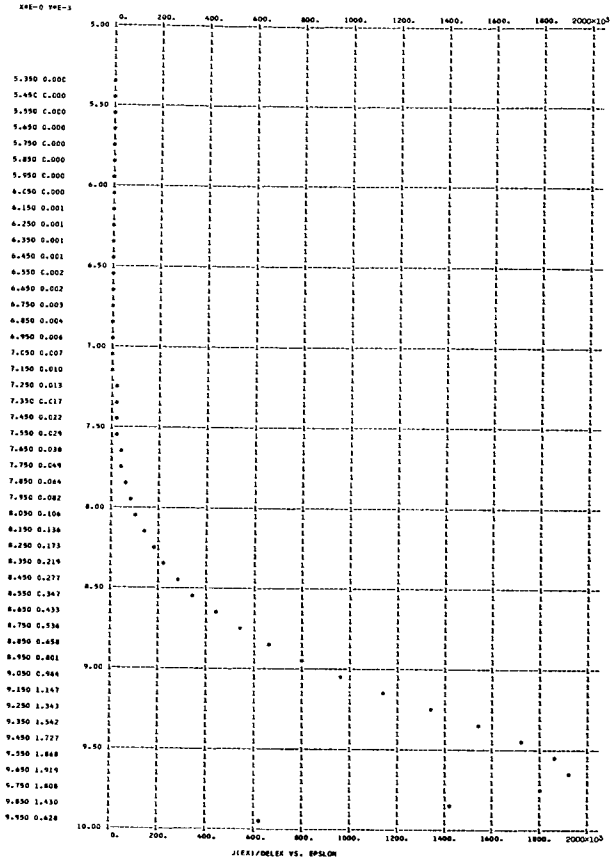


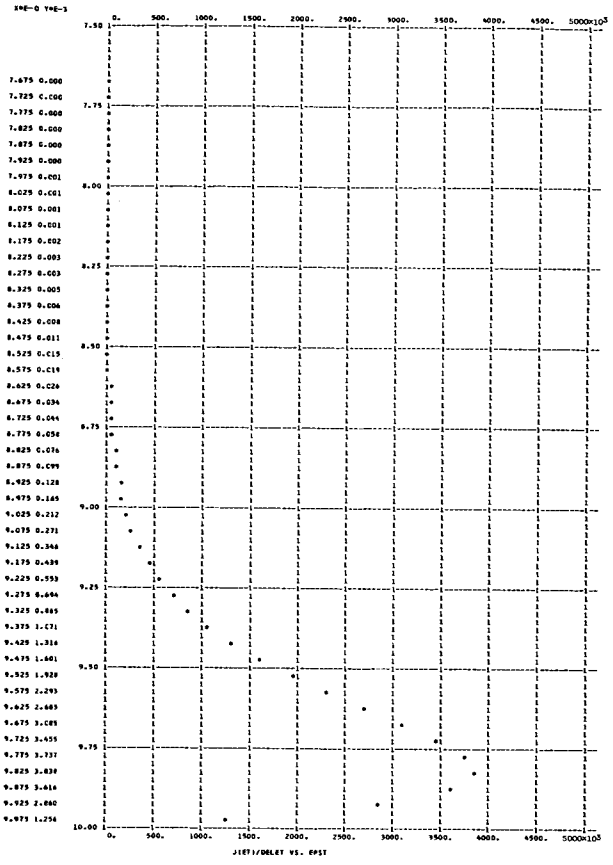
T = 0. E = 0.10000002E 09 PHI = 6.00 AMU = 10.00 EVMAX = 12.8054

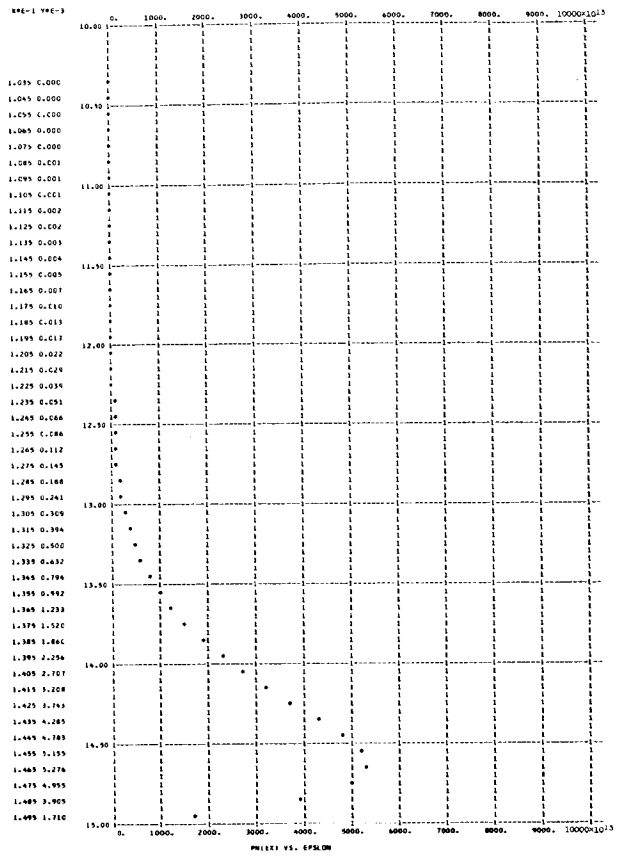
NEM = 0.14365730E 24 NEE = 0.63604561E 17 VXAV = 0.18071627E 09 KEXAV = 0.92915242E 01 KEXFL = 0.16815226E 10

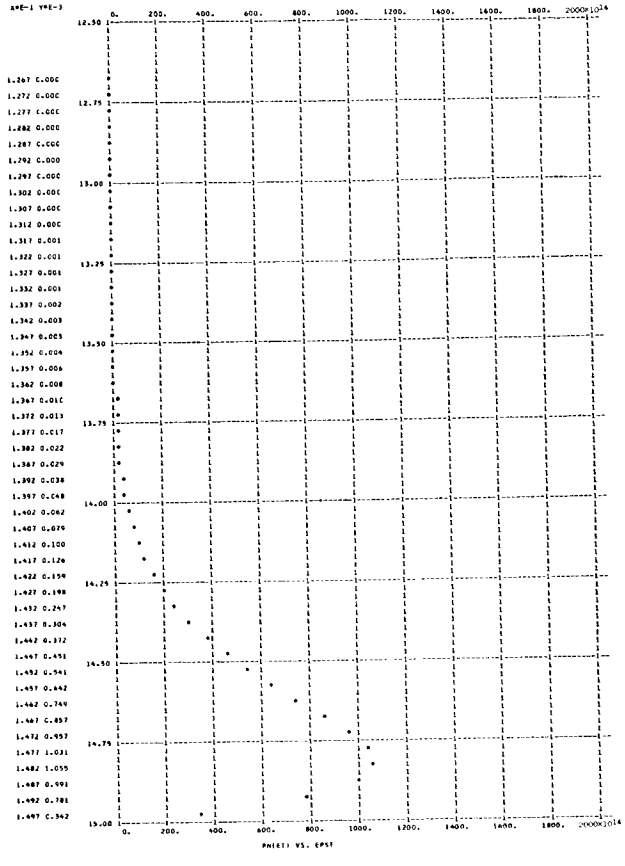
J = 0.184140E 07 KETAV= 0.964576E 01 KETFL= 0.174434E 10 TZERO = 0.746235E 05 TD = 0.279275E 04

Figure 3. - Continued.


X=E-0 Y=E-3
0.
200.
400.
600.
800.
1000.
1200.
1400.
1600.
1800.
2000x10³
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
5.350 0.000
5.450 0.000
5.550 0.000
5.650 0.000
5.750 0.000
5.850 0.000
5.950 0.000
6.050 0.000
6.150 0.001
6.250 0.001
6.350 0.001
6.450 0.001
6.550 0.002
6.650 0.002
6.750 0.003
6.850 0.004
6.950 0.006
7.050 0.007
7.150 0.010
7.250 0.013
7.350 0.017
7.450 0.022
7.550 0.029
7.650 0.038
7.750 0.049
7.850 0.064
7.950 0.082
8.050 0.106
8.150 0.136
8.250 0.173
8.350 0.219
8.450 0.277
8.550 0.347
8.650 0.433
8.750 0.536
8.850 0.658
8.950 0.801
9.050 0.966
9.150 1.147
9.250 1.343
9.350 1.542
9.450 1.727
9.550 1.868
9.650 1.919
9.750 1.808
9.850 1.430
9.950 0.628
J(EXI/DELEX VS. EPSLON


X=E-0 Y=E-3
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000x10³
7.50
7.75
8.00
8.25
8.50
8.75
9.00
9.25
9.50
9.75
10.00
7.675 0.000
7.725 0.000
7.775 0.000
7.825 0.000
7.875 0.000
7.925 0.000
7.975 0.001
8.025 0.001
8.075 0.001
8.125 0.001
8.175 0.002
8.225 0.003
8.275 0.003
8.325 0.005
8.375 0.006
8.425 0.008
8.475 0.011
8.525 0.015
8.575 0.019
8.625 0.026
8.675 0.034
8.725 0.044
8.775 0.056
8.825 0.076
8.875 0.099
8.925 0.128
8.975 0.165
9.025 0.212
9.075 0.271
9.125 0.346
9.175 0.438
9.225 0.553
9.275 0.694
9.325 0.865
9.375 1.071
9.425 1.316
9.475 1.601
9.525 1.928
9.575 2.293
9.625 2.685
9.675 3.085
9.725 3.455
9.775 3.737
9.825 3.838
9.875 3.616
9.925 2.880
9.975 1.254
J(ET)/DELET VS. EPST



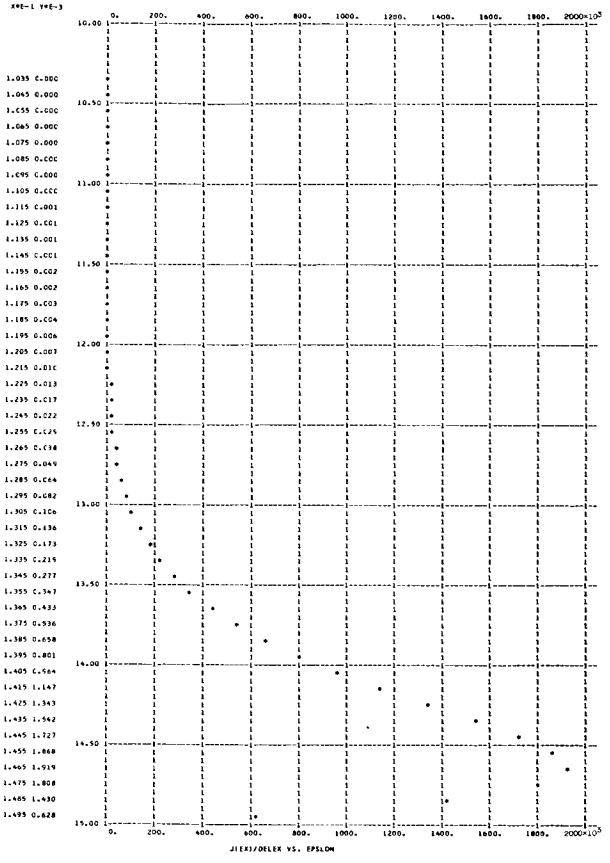


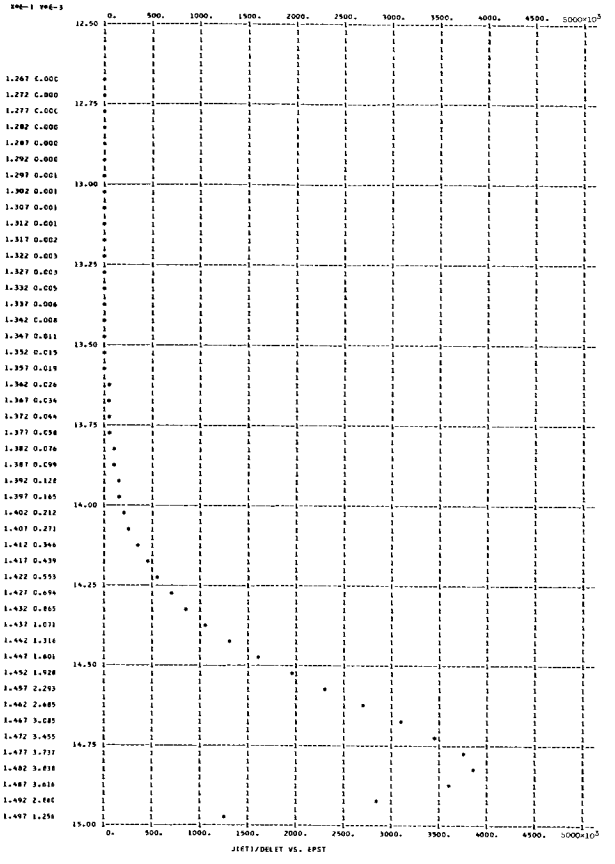
T = 0. E = 0.10000002E 09 PHI = 6.00 AMU = 15.00 EVMAX = 17.8054.

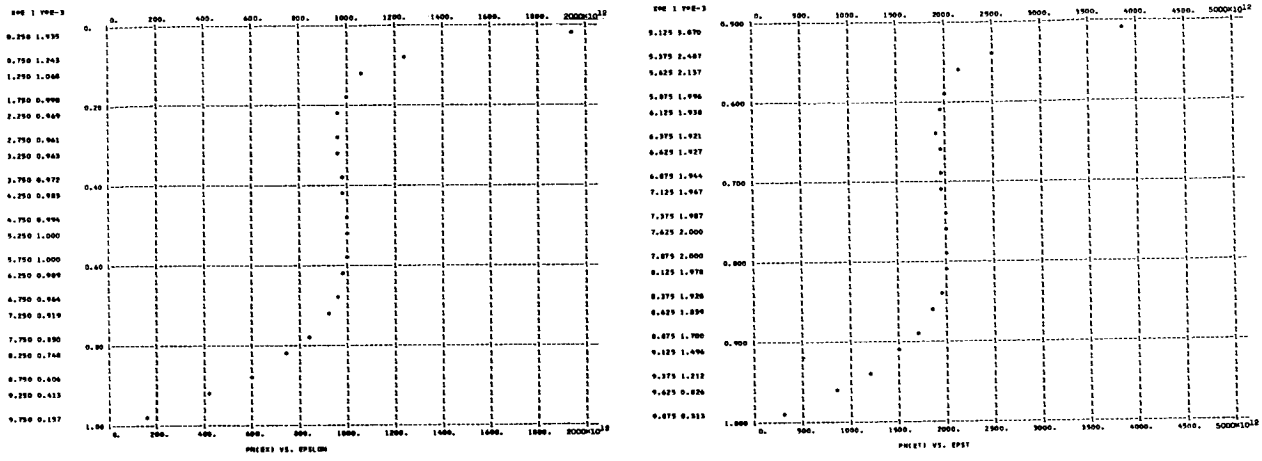
NEM = 0.26395186E 24 NEE = 0.51265357E 17 VXAV = 0.22421227E 09 KEXAV = 0.14296345E 02 KEXFL = 0.32073040E 10

J = 0.184139E 07 KETAV= 0.146482E 02 KETFL= 0.328524E 10 TZERO = 0.113324E 06 TD = 0.275484E 04

Figure 3. - Continued.


J(EX)/DELEX VS. EPSLON


J(ET)/DELET VS. EPST

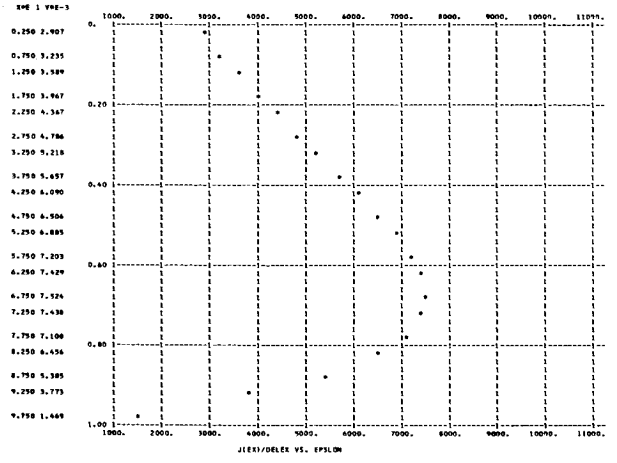


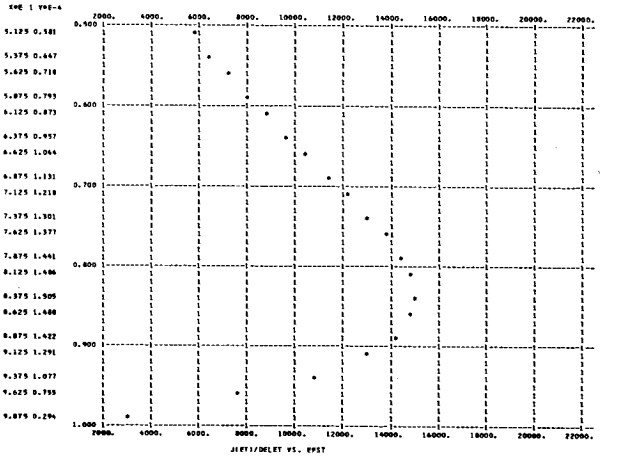
T = 0. E = 0.10000002E 09 PHI = 8.00 AMU = 1.00 EVMAX = 5.6554

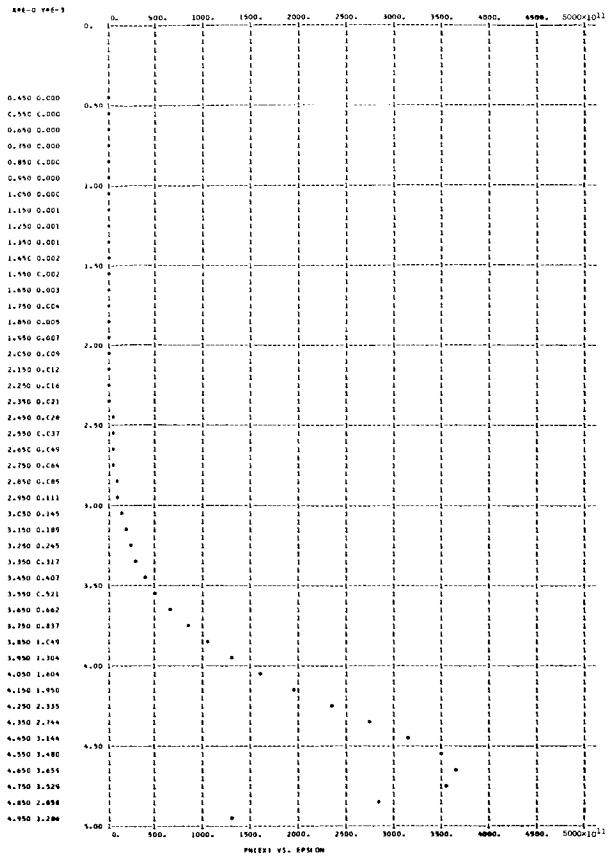
NEN = 0.45291001E 22 NEE = 0.97830711E 15 VXAV = 0.34553043E 08 KEXAV = 0.40376975E-00 KEXFL = 0.18071444E 08

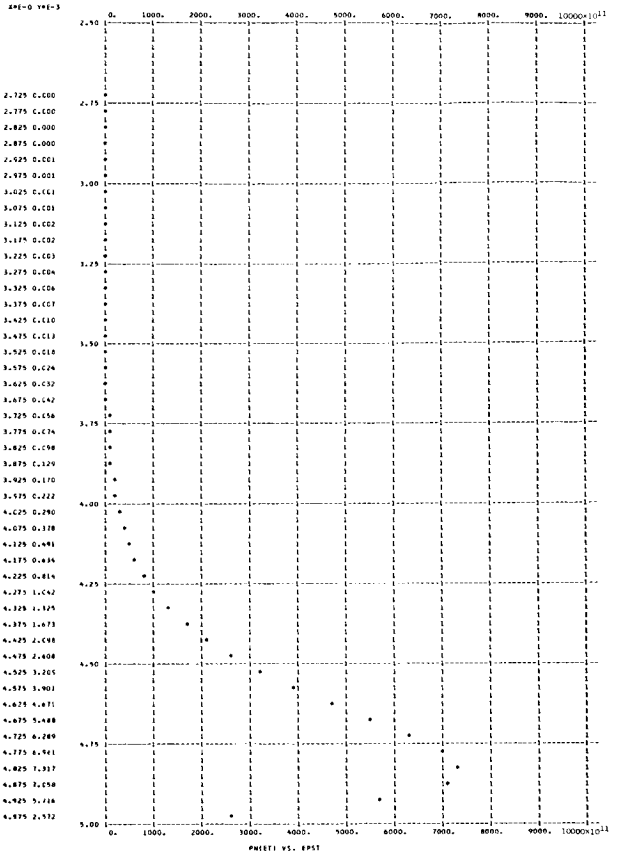
J = 0.541532E 04 KETAV= 0.701885E 00 KETFL= 0.263122E 08 TZERO = 0.543006E 04 TD = 0.280410E 04

Figure 3. - Continued.


1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000. 11000.
0. 0.20 0.40 0.60 0.80 1.00
J(EXI)/DELER VS. EPSLON


2000. 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000. 20000. 22000.
0.400 0.600 0.700 0.800 0.900 1.000
J(EXI)/DELEY VS. EPST



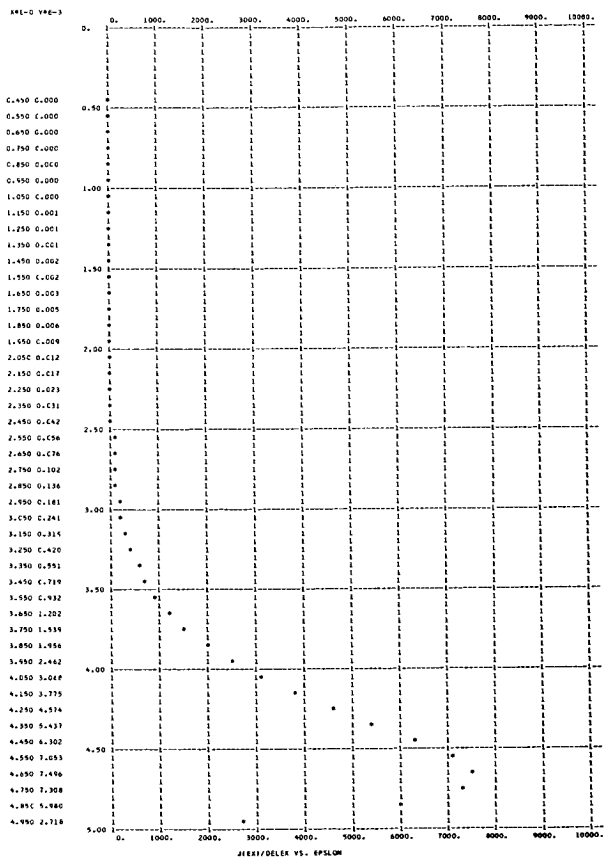


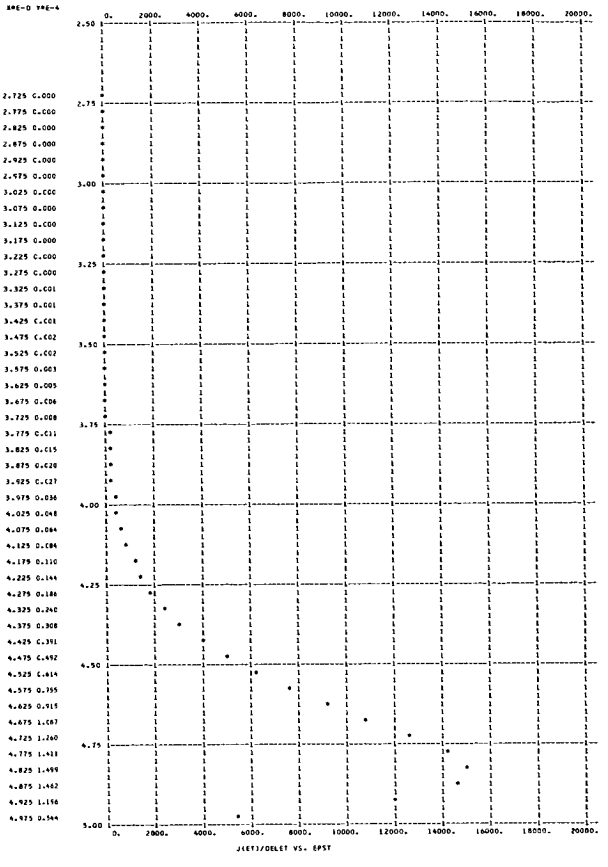
T = 0. E = 0.10000002E 09 PHI = 8.00 AMU = 5.00 EVMAX = 9.6554

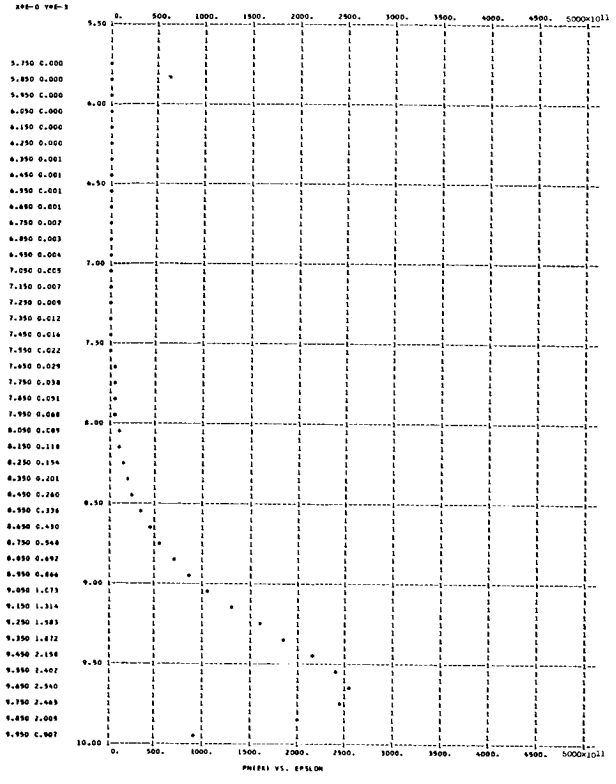
NEM = 0.50762521E 23 NEE = 0.32725298E 15 VXAV = 0.12352622E 09 KEXAV = 0.43511099E 01 KEXFL = 0.54055229E 09

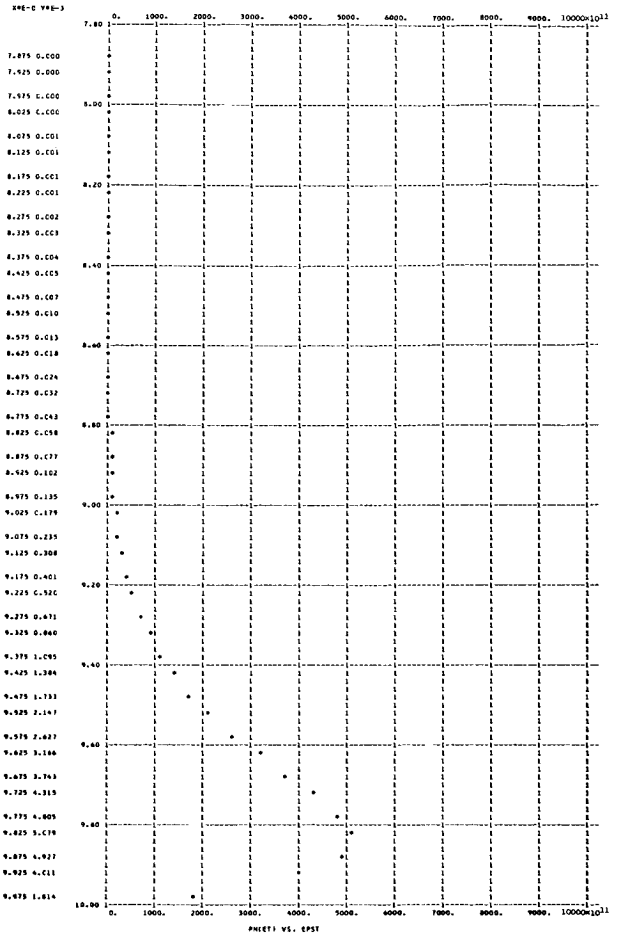
J = 0.647598E 04 KETAV= 0.467555E 01 KETFL= 0.579092E 09 TZERO = 0.361720E 05 TD = 0.261103E 04

Figure 3. - Continued.


0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000.
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
J(EXI/DELER VS. EPSLON


0.
2000.
4000.
6000.
8000.
10000.
12000.
14000.
16000.
18000.
20000.
2.50
2.75
3.00
3.25
3.50
3.75
4.00
4.25
4.50
4.75
5.00
J(ET)/DELET VS. EPST



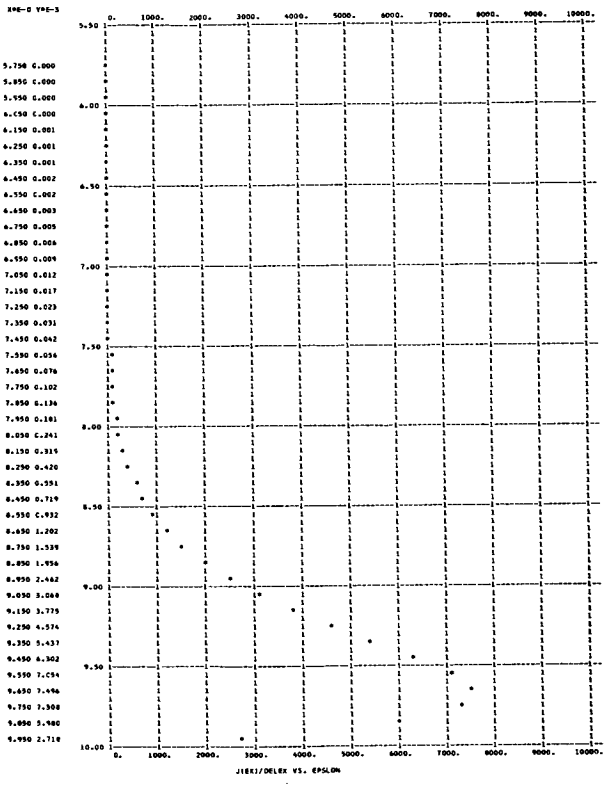


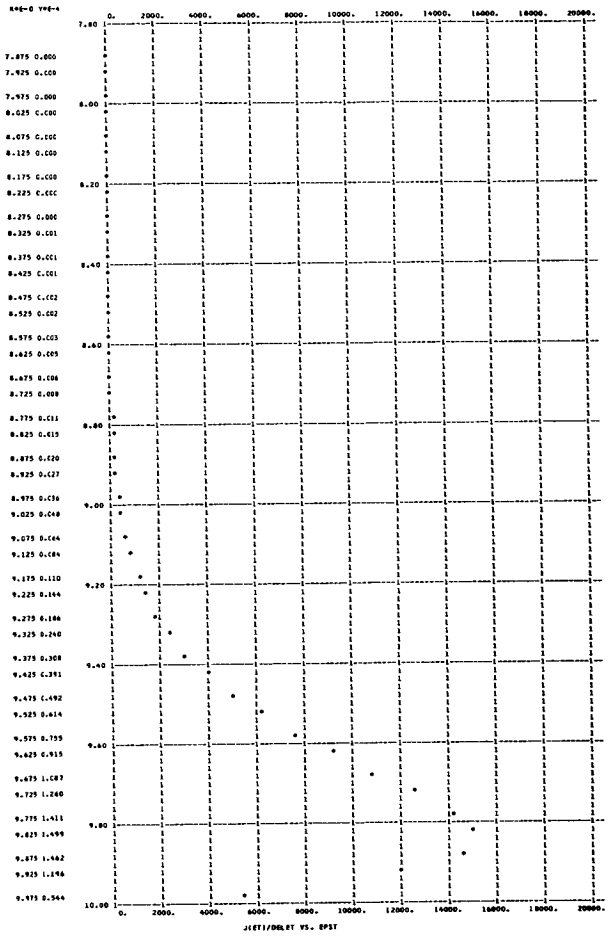
T = 0. E = 0.10000002E 09 PHI = 8.00 AMU = 10.00 EVMAX = 14.6554

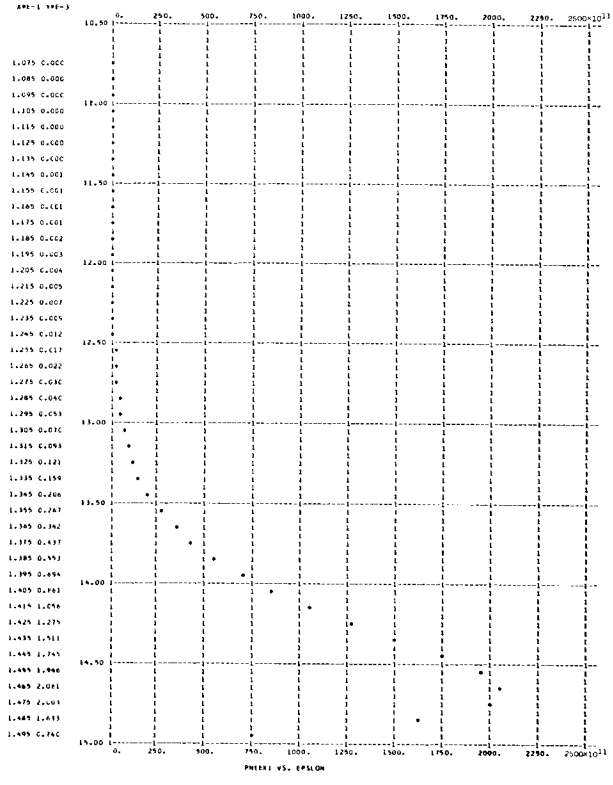
NEM = 0.14365730E 24 NEE = 0.22278862E 15 VXAV = 0.18144611E 09 KEXAV = 0.93653473E 01 KEXFL = 0.17012414E 10

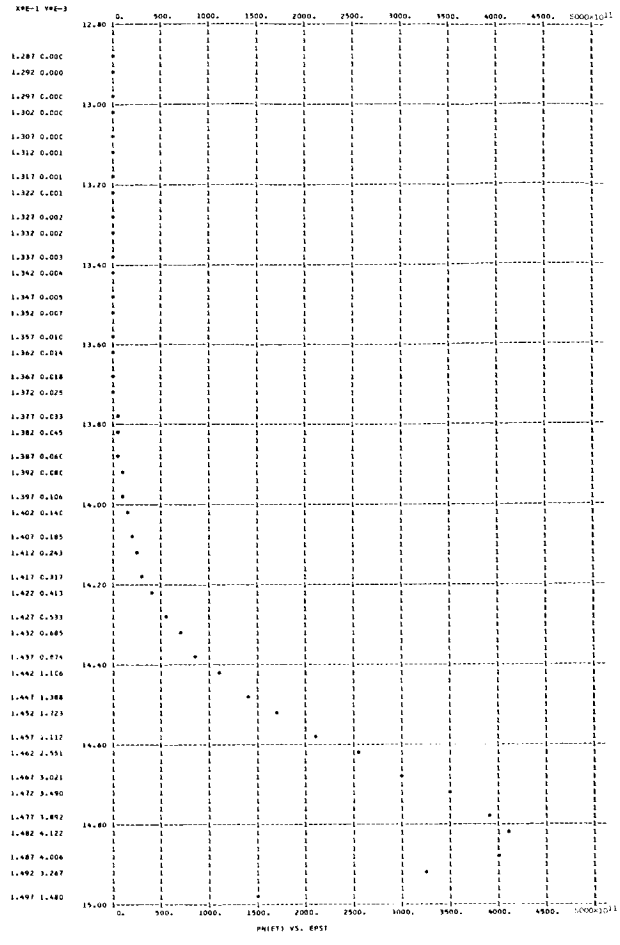
J = 0.647595E 04 KETAV= 0.968267E 01 KETFL= 0.175785E 10 TZERO = 0.749091E 05 TO = 0.249695E 04

Figure 3. - Continued.


RHE-8 YHE-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
5.750 0.000
5.850 0.000
5.950 0.000
6.050 0.000
6.150 0.001
6.250 0.001
6.350 0.001
6.450 0.002
6.550 0.002
6.650 0.003
6.750 0.005
6.850 0.006
6.950 0.009
7.050 0.012
7.150 0.017
7.250 0.023
7.350 0.031
7.450 0.042
7.550 0.056
7.650 0.076
7.750 0.102
7.850 0.136
7.950 0.181
8.050 0.241
8.150 0.319
8.250 0.420
8.350 0.551
8.450 0.719
8.550 0.932
8.650 1.202
8.750 1.539
8.850 1.956
8.950 2.462
9.050 3.068
9.150 3.775
9.250 4.574
9.350 5.437
9.450 6.302
9.550 7.094
9.650 7.496
9.750 7.308
9.850 5.980
9.950 2.718
JIEKI/DELEX VS. EPSLON


RHE-8 YHE-4
0. 2000. 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000. 20000.
7.80
8.00
8.20
8.40
8.60
8.80
9.00
9.20
9.40
9.60
9.80
10.00
7.875 0.000
7.925 0.000
7.975 0.000
8.025 0.000
8.075 0.000
8.125 0.000
8.175 0.000
8.225 0.000
8.275 0.000
8.325 0.001
8.375 0.001
8.425 0.001
8.475 0.002
8.525 0.002
8.575 0.003
8.625 0.005
8.675 0.006
8.725 0.008
8.775 0.011
8.825 0.015
8.875 0.020
8.925 0.027
8.975 0.036
9.025 0.048
9.075 0.064
9.125 0.084
9.175 0.110
9.225 0.144
9.275 0.186
9.325 0.240
9.375 0.308
9.425 0.391
9.475 0.492
9.525 0.614
9.575 0.759
9.625 0.915
9.675 1.087
9.725 1.260
9.775 1.411
9.825 1.499
9.875 1.462
9.925 1.296
9.975 0.964
JIEFI/DELEF VS. EPSI



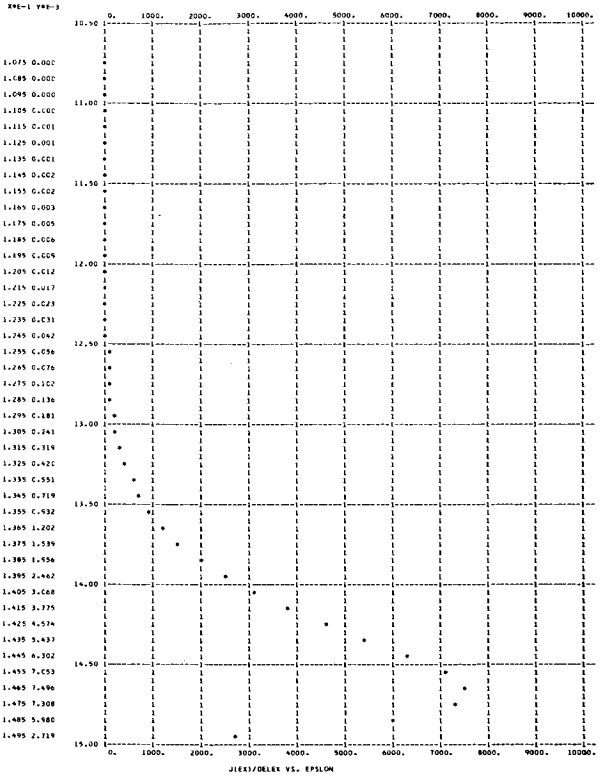


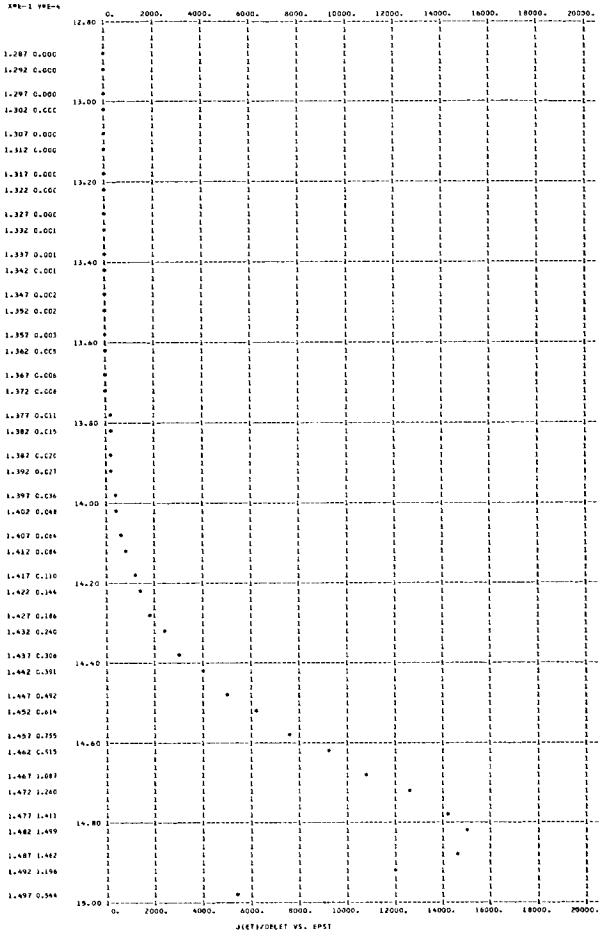
T = 0. E = 0.10000002E 09 PHI = 8.00 AMU = 15.00 EVMAX = 19.6554

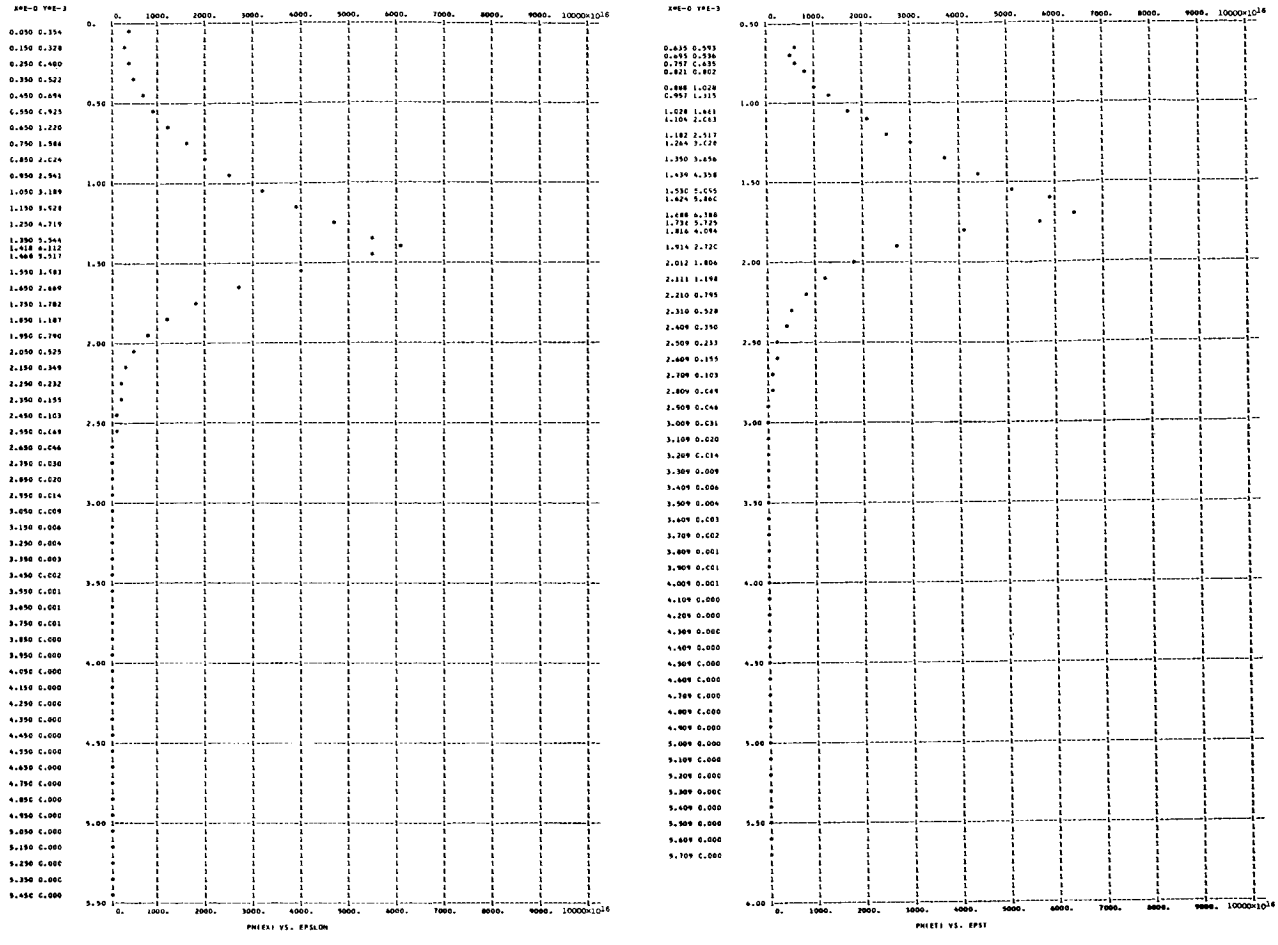
NEM = 0.26395186E 24 NEE = 0.17982928E 15 VXAV = 0.22478932E 09 KEXAV = 0.14369192E 02 KEXFL = 0.32315740E 10

J = 0.647588E 04 KETAV= 0.146846E 02 KETFL= 0.330171E 10 TZERO = 0.113606E 06 TD = 0.246676E 04

Figure 3. - Continued.


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
1.075 0.000
1.085 0.000
1.095 0.000
1.105 0.000
1.115 0.001
1.125 0.001
1.135 0.001
1.145 0.002
1.155 0.002
1.165 0.003
1.175 0.005
1.185 0.006
1.195 0.009
1.205 0.012
1.215 0.017
1.225 0.023
1.235 0.031
1.245 0.042
1.255 0.056
1.265 0.076
1.275 0.102
1.285 0.136
1.295 0.181
1.305 0.241
1.315 0.319
1.325 0.420
1.335 0.551
1.345 0.719
1.355 0.932
1.365 1.202
1.375 1.539
1.385 1.956
1.395 2.462
1.405 3.068
1.415 3.775
1.425 4.574
1.435 5.437
1.445 6.302
1.455 7.053
1.465 7.496
1.475 7.308
1.485 5.980
1.495 2.719
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
J(EX)/DELEX VS. EPSLON


X*E-1 Y*E-4
0. 2000. 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000. 20000.
12.80
13.00
13.20
13.40
13.60
13.80
14.00
14.20
14.40
14.60
14.80
15.00
1.287 0.000
1.292 0.000
1.297 0.000
1.302 0.000
1.307 0.000
1.312 0.000
1.317 0.000
1.322 0.000
1.327 0.000
1.332 0.001
1.337 0.001
1.342 0.001
1.347 0.002
1.352 0.002
1.357 0.003
1.362 0.005
1.367 0.006
1.372 0.008
1.377 0.011
1.382 0.015
1.387 0.020
1.392 0.027
1.397 0.036
1.402 0.048
1.407 0.064
1.412 0.084
1.417 0.110
1.422 0.144
1.427 0.186
1.432 0.240
1.437 0.308
1.442 0.391
1.447 0.492
1.452 0.614
1.457 0.755
1.462 0.915
1.467 1.087
1.472 1.260
1.477 1.413
1.482 1.499
1.487 1.462
1.492 1.196
1.497 0.544
0. 2000. 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000. 20000.
J(ET)/DELET VS. EPST

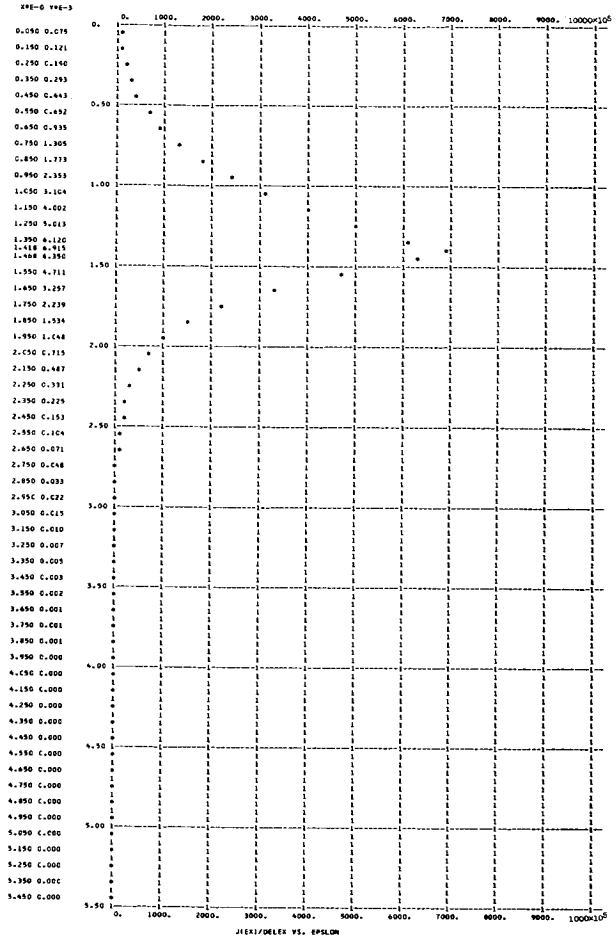


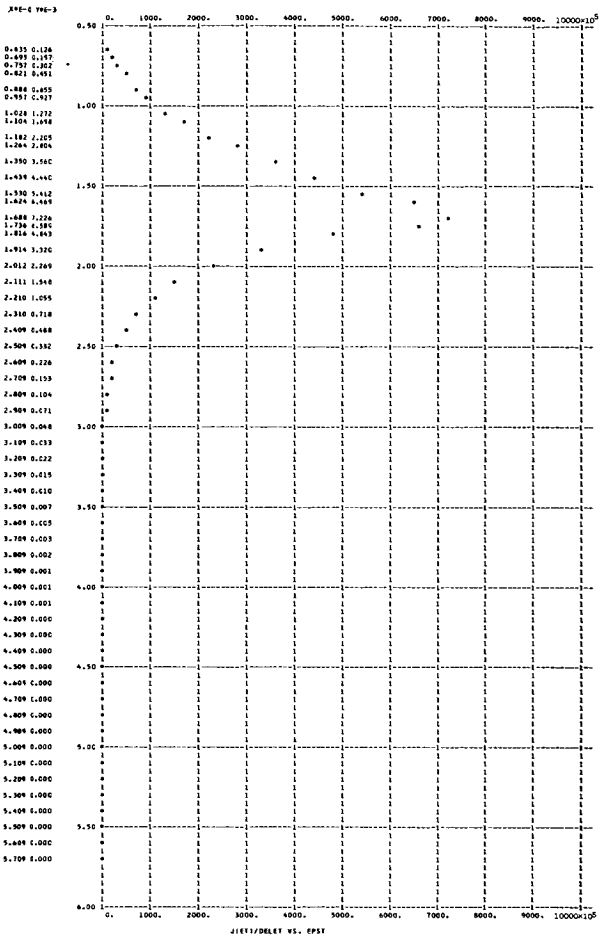
T = 0.30000000E 04 E = 0.31622784E 08 PHI = 2.00 AMU = 1.00 EVMAX = 1.4353

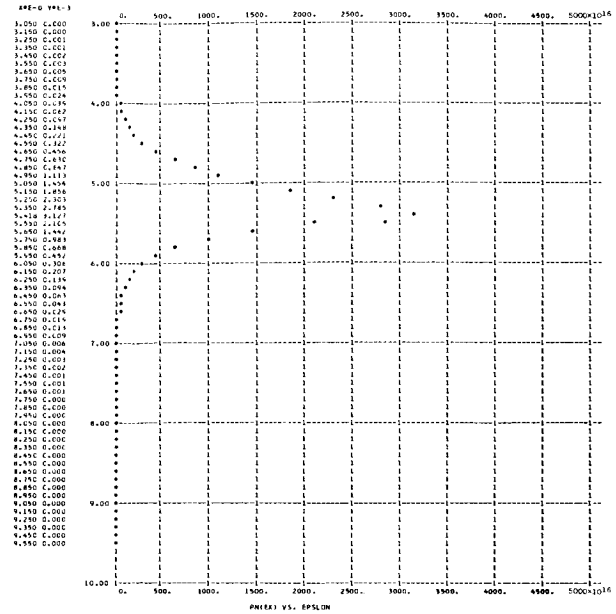
NEM = 0.49014682E 22 NEE = 0.45846504E 20 VXAV = 0.65349928E 08 KEXAV = 0.12611070E 01 KEXFL = 0.87799626E 08

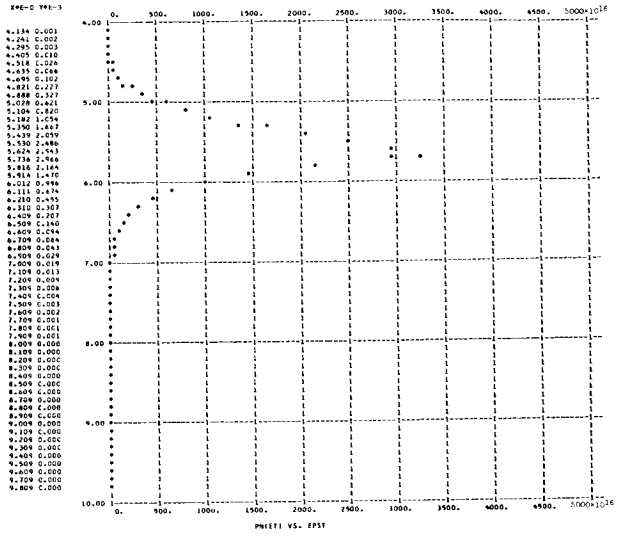
J = 0.479970E 09 KETAV= 0.156047E 01 KETFL= 0.106656E 09 TZERO = 0.120724E 05 TO = 0.267941E 04

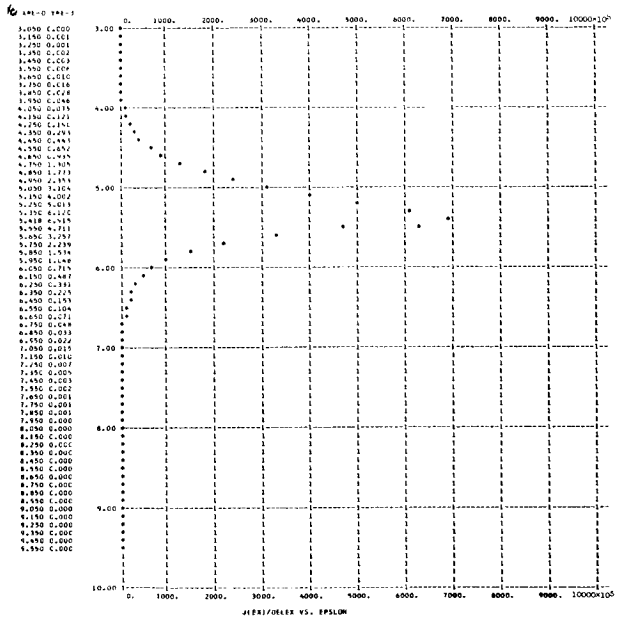
Figure 3. - Continued.

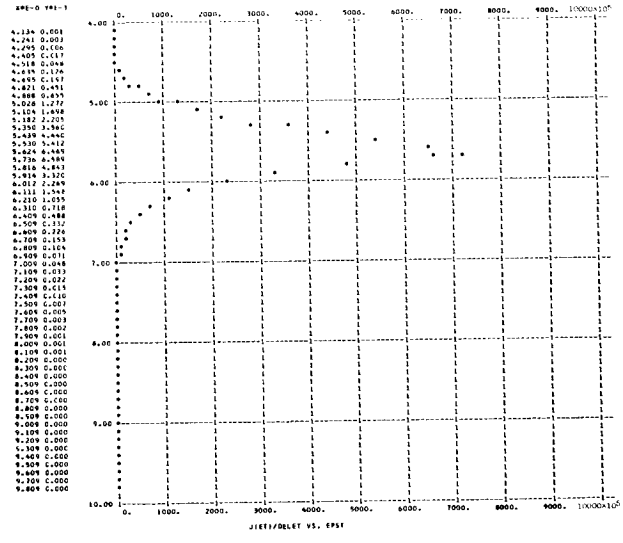

X*E-6 Y*E-3
0.050 0.075
0.150 0.121
0.250 0.140
0.350 0.293
0.450 0.443
0.550 0.652
0.650 0.935
0.750 1.305
0.850 1.773
0.950 2.353
1.050 3.104
1.150 4.002
1.250 5.013
1.350 6.120
1.418 6.915
1.488 8.350
1.550 4.711
1.650 3.257
1.750 2.239
1.850 1.534
1.950 1.048
2.050 0.715
2.150 0.487
2.250 0.331
2.350 0.225
2.450 0.153
2.550 0.104
2.650 0.071
2.750 0.048
2.850 0.033
2.950 0.022
3.050 0.015
3.150 0.010
3.250 0.007
3.350 0.005
3.450 0.003
3.550 0.002
3.650 0.001
3.750 0.001
3.850 0.001
3.950 0.000
4.050 0.000
4.150 0.000
4.250 0.000
4.350 0.000
4.450 0.000
4.550 0.000
4.650 0.000
4.750 0.000
4.850 0.000
4.950 0.000
5.050 0.000
5.150 0.000
5.250 0.000
5.350 0.000
5.450 0.000
0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000x10^5
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
JIEXI/DELEX VS. EPSLON


X*E-6 Y*E-3
0.835 0.126
0.699 0.157
0.757 0.302
0.821 0.451
0.888 0.655
0.957 0.927
1.028 1.272
1.104 1.698
1.182 2.205
1.264 2.804
1.350 3.560
1.439 4.440
1.530 5.412
1.624 6.469
1.688 7.226
1.736 6.586
1.814 6.643
1.914 3.326
2.012 2.269
2.111 1.548
2.210 1.055
2.310 0.718
2.409 0.488
2.509 0.332
2.609 0.226
2.709 0.153
2.809 0.104
2.909 0.071
3.009 0.048
3.109 0.033
3.209 0.022
3.309 0.015
3.409 0.010
3.509 0.007
3.609 0.005
3.709 0.003
3.809 0.002
3.909 0.001
4.009 0.001
4.109 0.001
4.209 0.000
4.309 0.000
4.409 0.000
4.509 0.000
4.609 0.000
4.709 0.000
4.809 0.000
4.909 0.000
5.009 0.000
5.109 0.000
5.209 0.000
5.309 0.000
5.409 0.000
5.509 0.000
5.609 0.000
5.709 0.000
0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000x10^5
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00
JIEXI/DELEY VS. EPSI







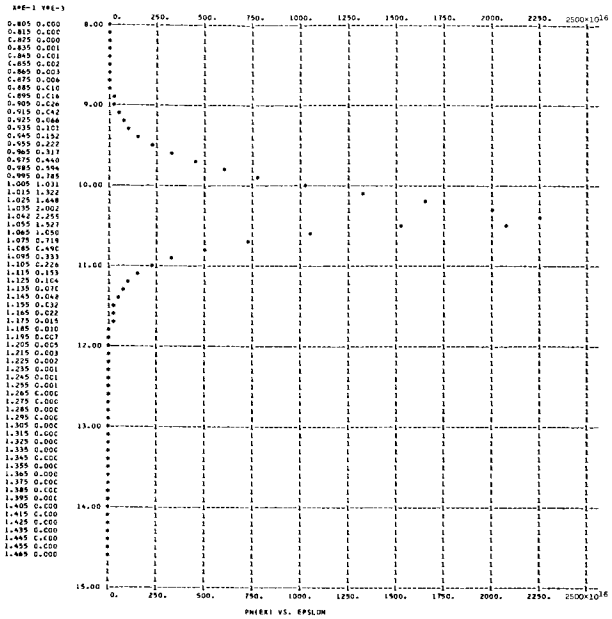


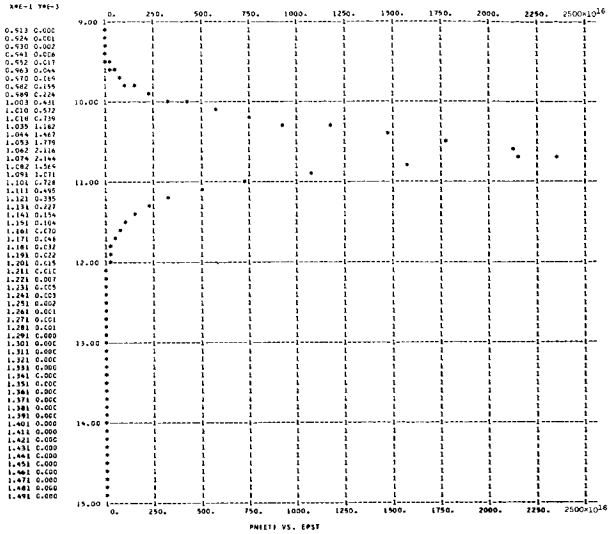
T = 0.30000000E 04 E = 0.31622784E 08 PHI = 2.00 AMU = 5.00 EVMAX = 5.4353

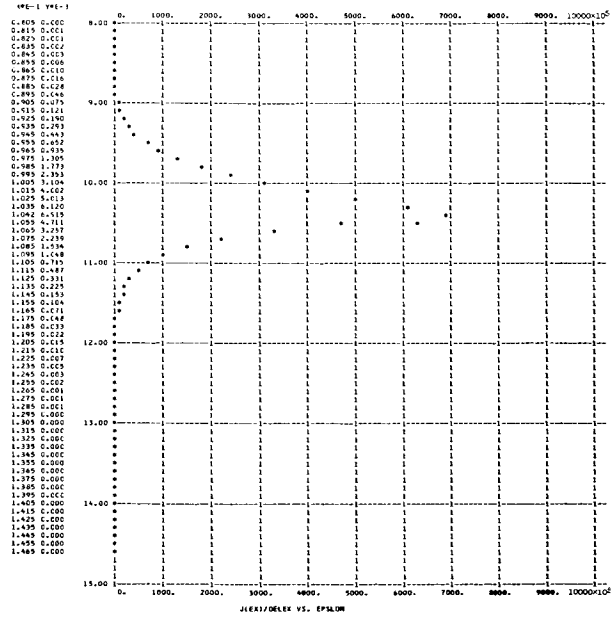
NEM = 0.50929855E 23 NEE = 0.21937698E 20 VXAV = 0.13676591E 09 KEXAV = 0.53255363E 01 KEXFL = 0.73045517E 09

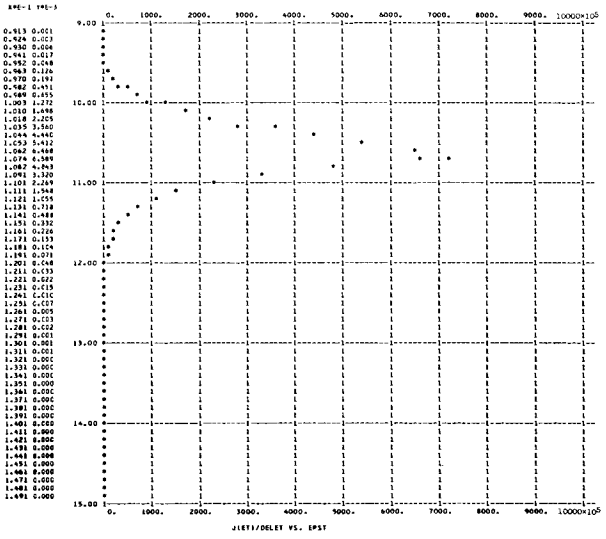
J = 0.480653E 09 KETAV= 0.561632E 01 KETFL= 0.770016E 09 TZERO = 0.434501E 05 TD = 0.230945E 04

Figure 3. - Continued.







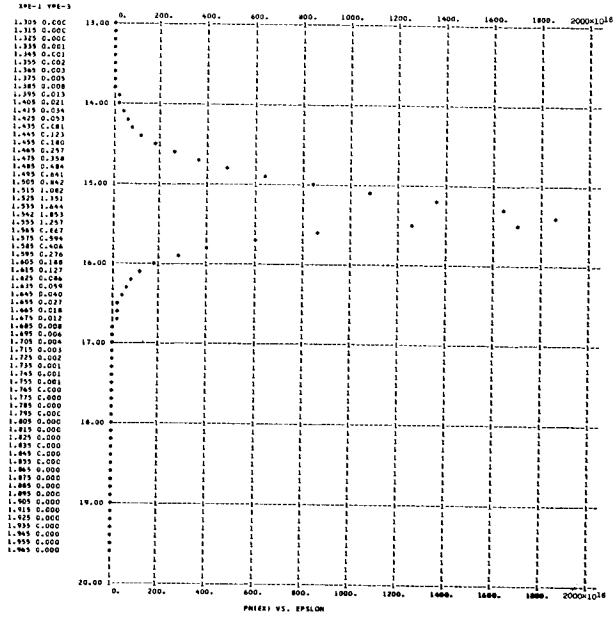


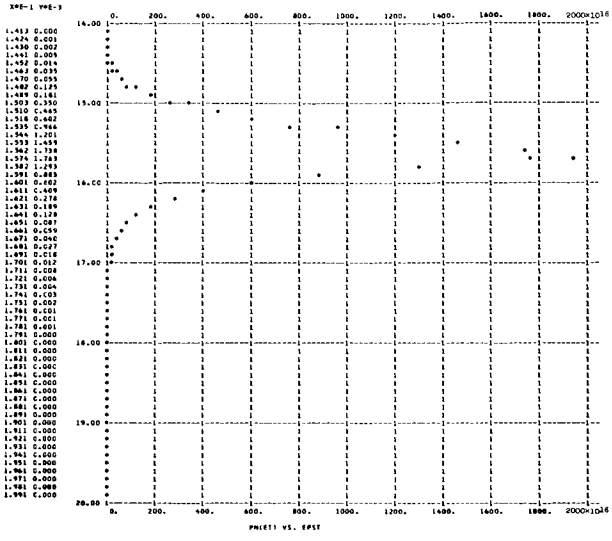
T = 0.30000000E 04 E = 0.31622784E 08 PHI = 2.00 AMU = 10.00 EVMAX = 10.4353

NEM = 0.14377541E 24 NEE = 0.15740655E 20 VXAV = 0.19060896E 09 KEXAV = 0.10333056E 02 KEXFL = 0.19710711E 10

J = 0.480650E 09 KETAV= 0.106231E 02 KETFL= 0.202621E 10 TZERO = 0.821843E 05 TD = 0.227407E 04

Figure 3. - Continued.



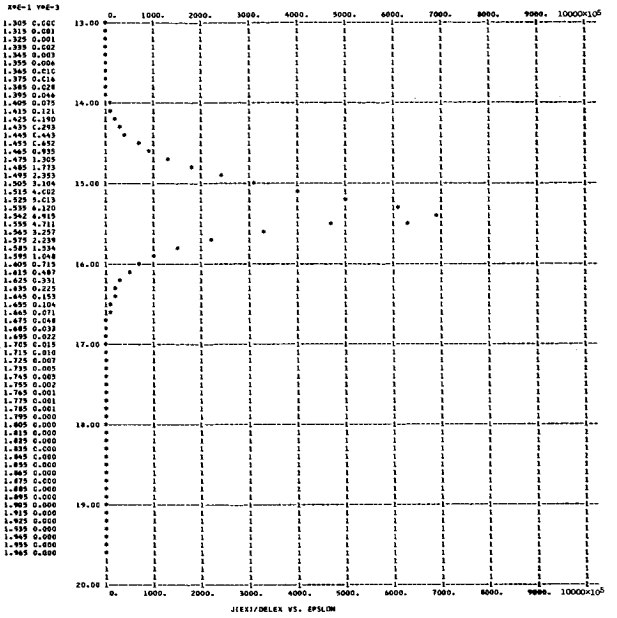


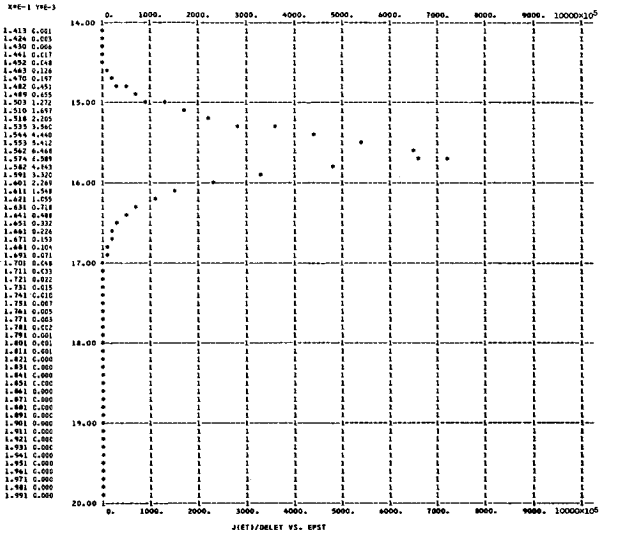
T = 0.30000000E 04 E = 0.31622784E 08 PHI = 2.00 AMU = 15.00 EVMAX = 15.4353

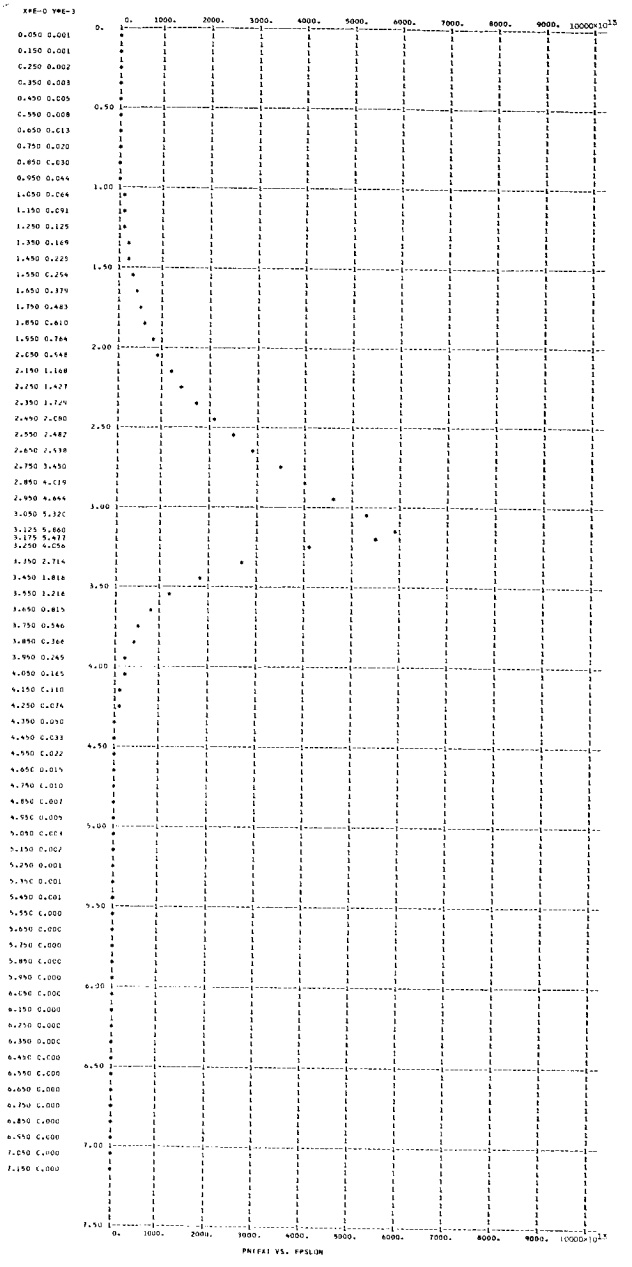
NEM = 0.26404824E 24 NEE = 0.12919338E 20 VXAV = 0.23223355E 09 KEXAV = 0.15335631E 02 KEXFL = 0.356267S3E 10

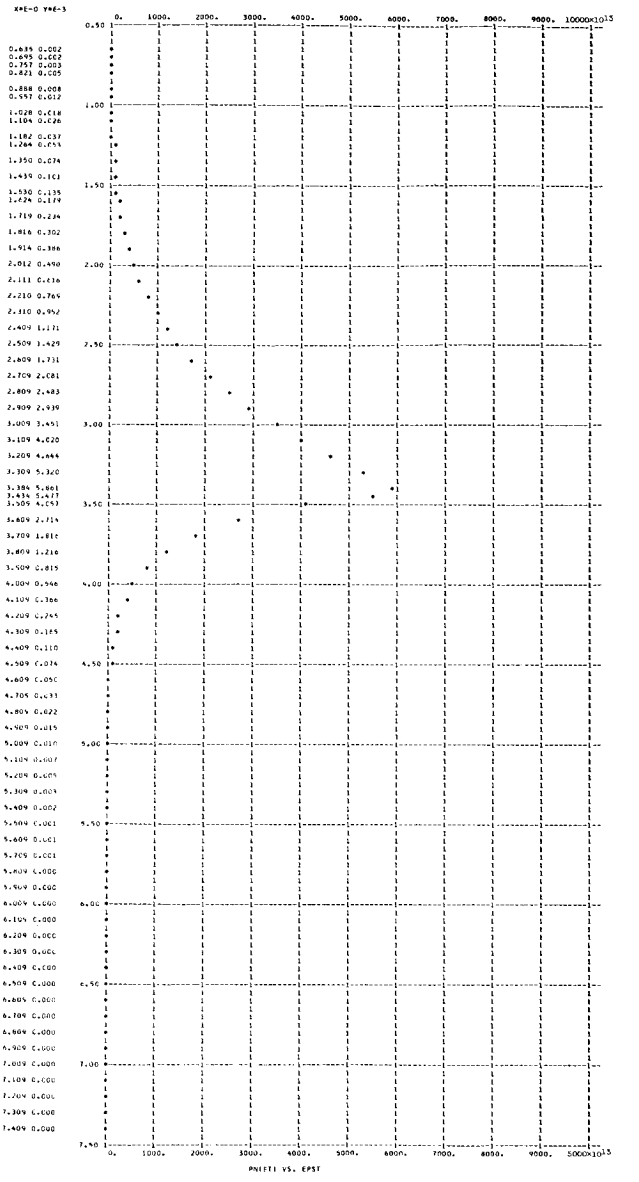
J = 0.480649E 09 KETAV= 0.156254E 02 KETFL= 0.362985E 10 TZERO = 0.120884E 06 TD = 0.226213E 04

Figure 3. - Continued.


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10^5
13.00
14.00
15.00
16.00
17.00
18.00
19.00
20.00
J(EX)/DELEX VS. EPSLON


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10^5
14.00
15.00
16.00
17.00
18.00
19.00
20.00
J(ET)/DELET VS. EPST



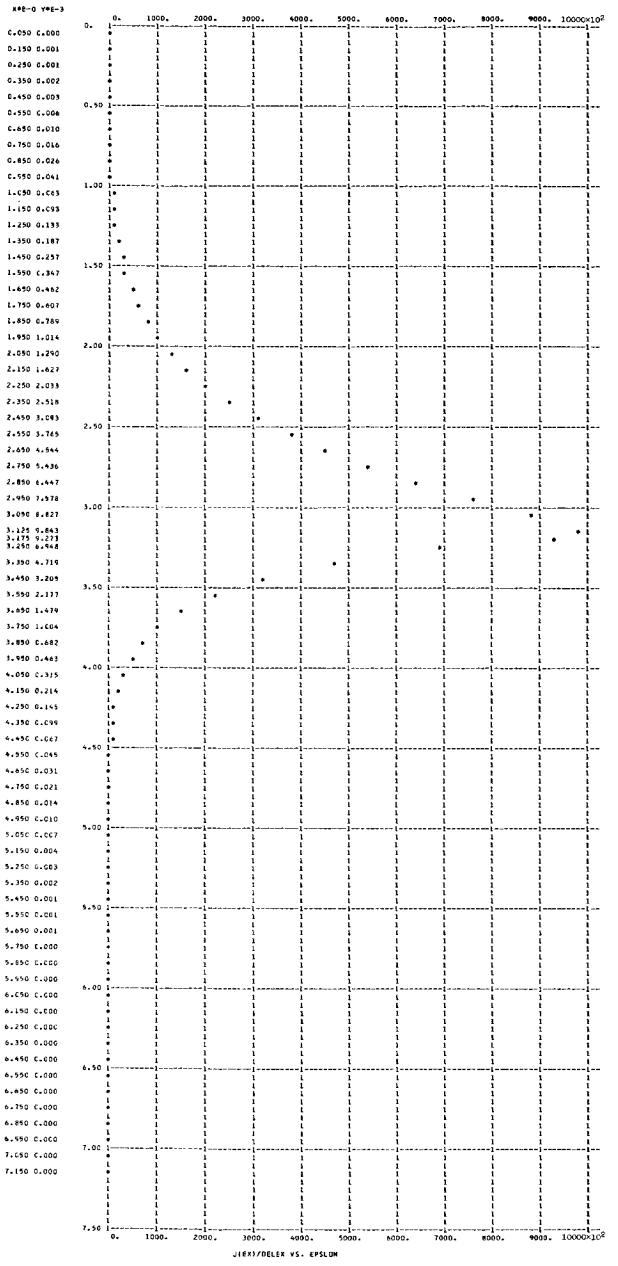


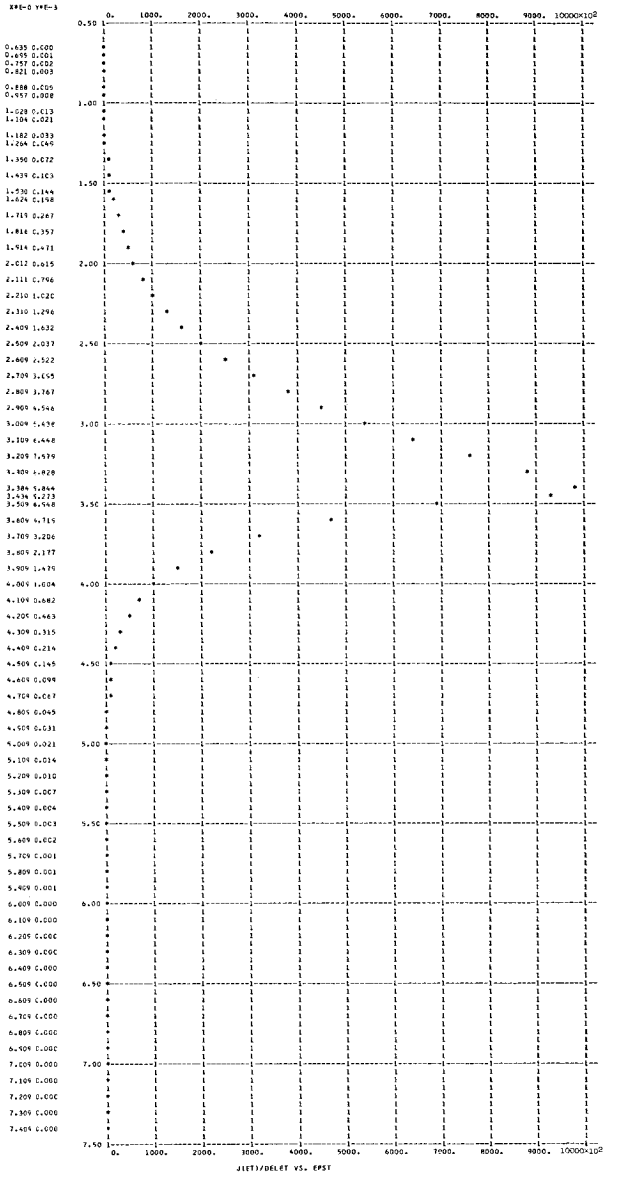
T = 0.3CC00000E 04 E = 0.31622784E 08 PHI = 4.00 AMU = 1.00 EVMAX = 3.1508

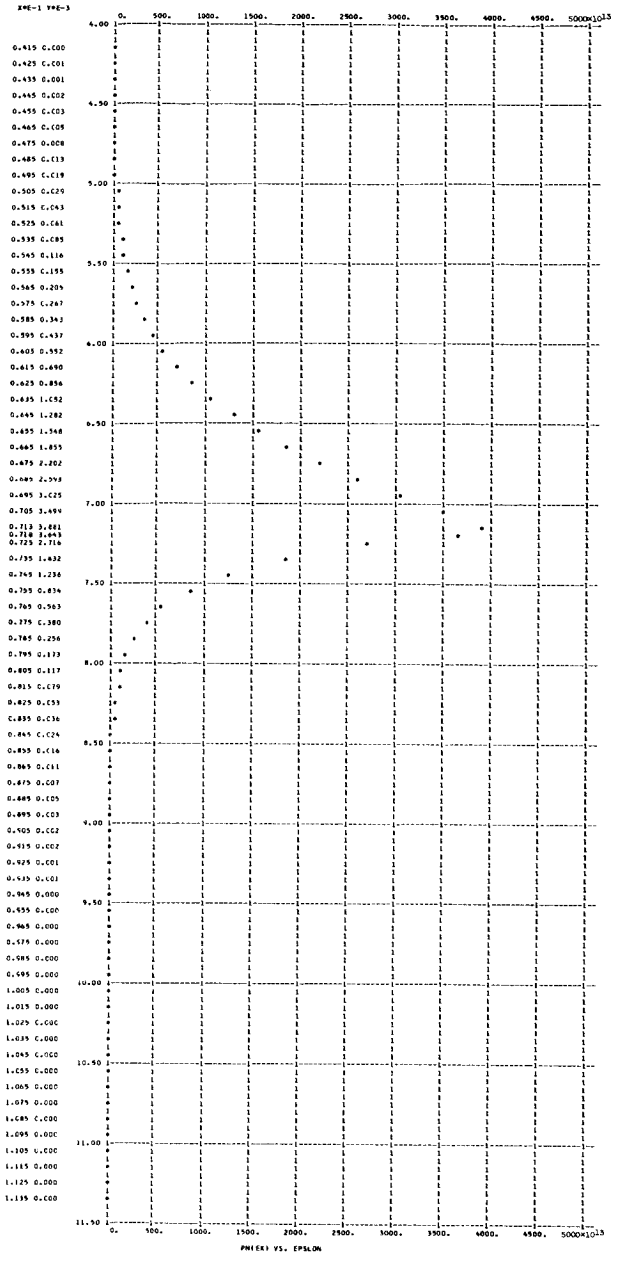
NEM = 0.49014194E 22 NEE = 0.51487531E 17 VXAV = 0.99950858E 08 KEXAV = 0.28664622E 01 KEXFL = 0.29146563E 09

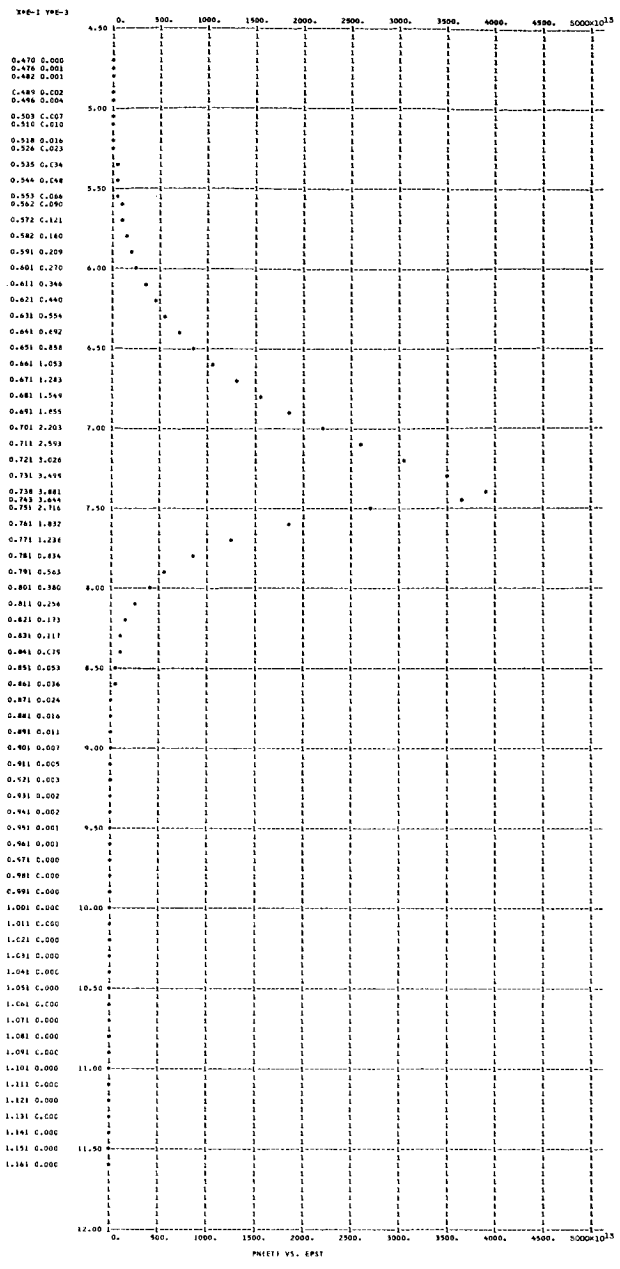
J = 0.824425E 06 KETAV= 0.312575E 01 KETFL= 0.317355E 09 TZERO = 0.241820E 05 TD = 0.220906E 04

Figure 3. - Continued.


X*E-0 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10²
J(EX)/DELER VS. EPSLON


X*E-0 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10²
J(ET)/DELET VS. EPST



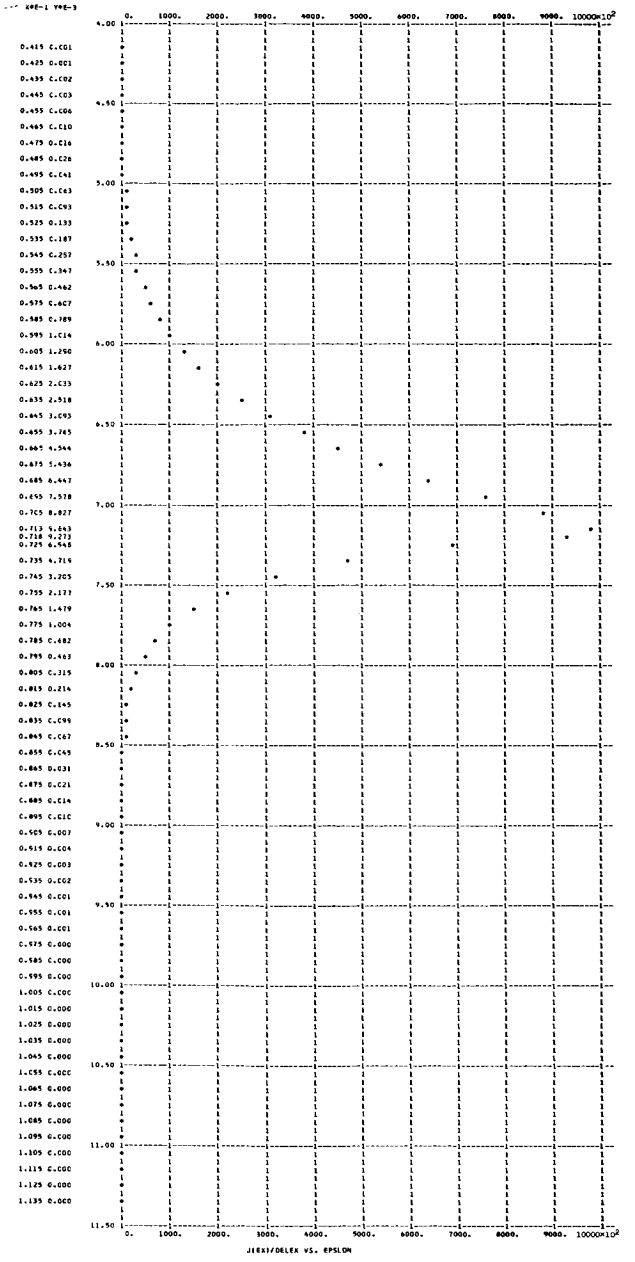


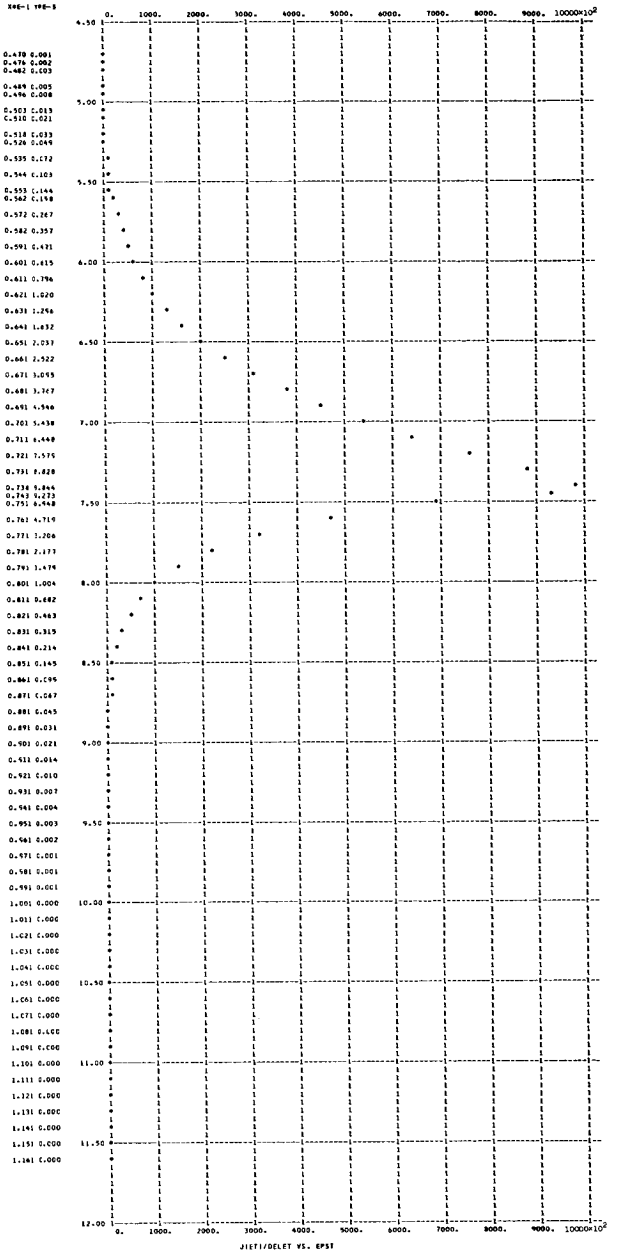
T = 0.30000000E 04 E = 0.91622784E 08 PHI = 4.00 AMU = 5.00 EVMAX = 7.1508

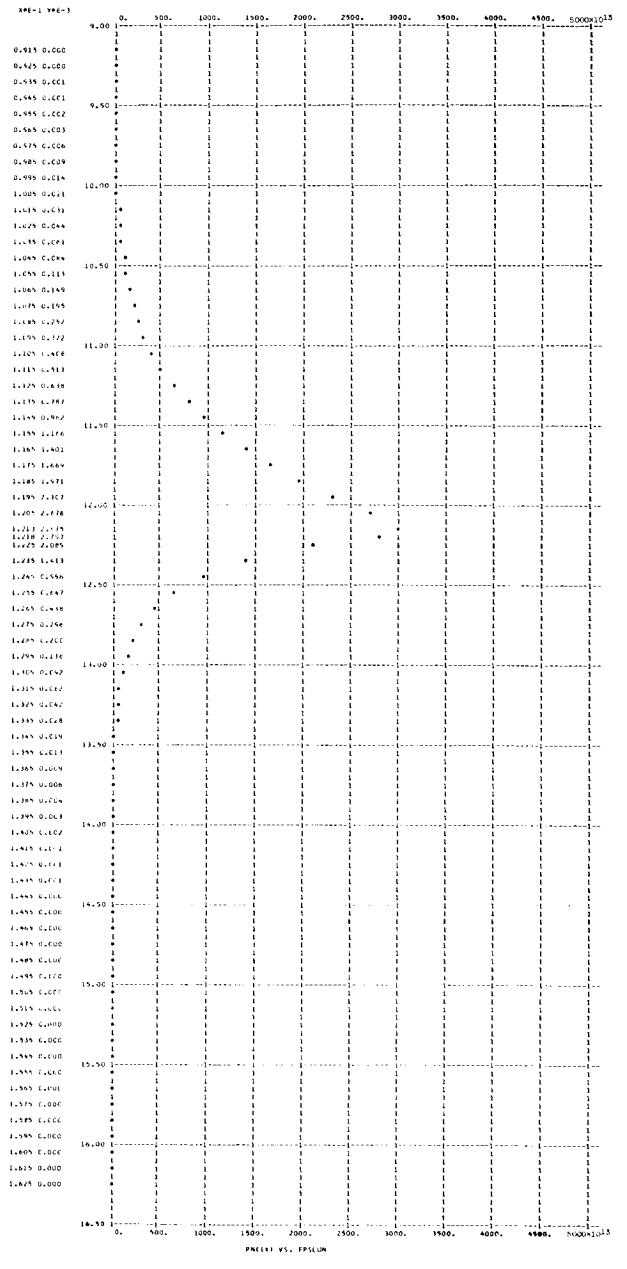
NEM = 0.50929832E 23 NEE = 0.33060678E 17 VXAV = 0.15565496E 09 KEXAV = 0.68975506E 01 KEXFL = 0.10765243E 10

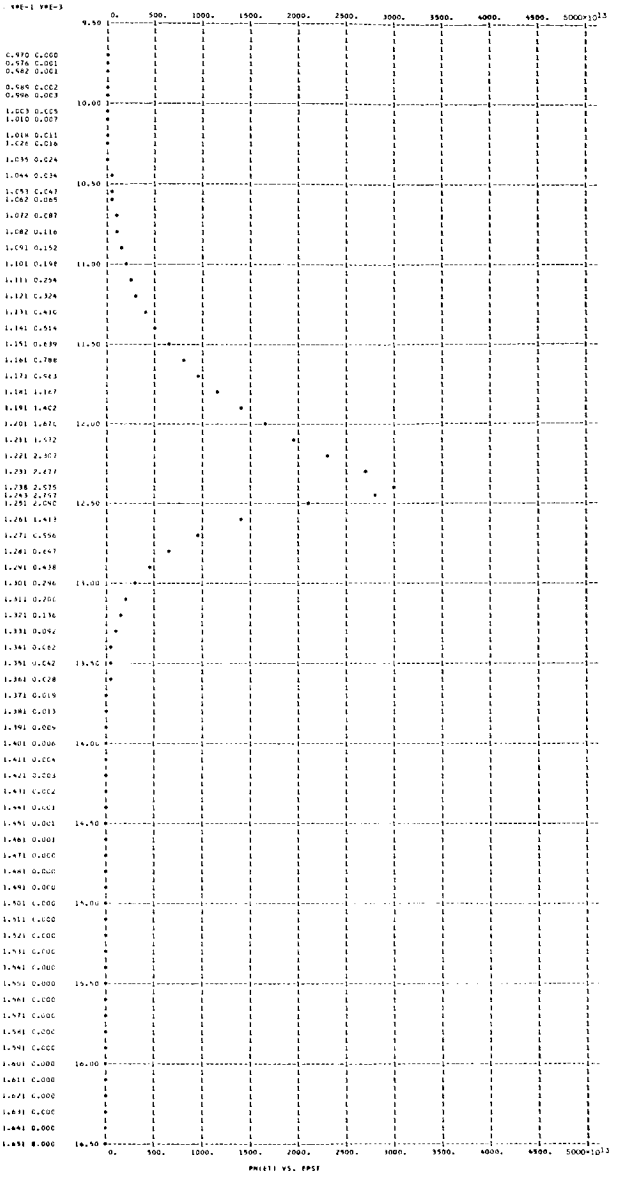
J = 0.824399E 06 KETAV= 0.715664E 01 KETFL= 0.111684E 10 TZERO = 0.553666E 05 TD = 0.207711E 04

Figure 3. - Continued.


XAE-1 YAE-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10²
4.00
4.50
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
11.50
0.415 C.C01
0.425 0.001
0.435 C.C02
0.445 C.C03
0.455 C.C06
0.465 C.C10
0.475 0.C16
0.485 0.C28
0.495 C.C41
0.505 C.C63
0.515 C.C93
0.525 0.133
0.535 C.187
0.545 C.257
0.555 C.347
0.565 0.462
0.575 C.6C7
0.585 C.789
0.595 1.C14
0.605 1.290
0.615 1.627
0.625 2.C35
0.635 2.518
0.645 3.C93
0.655 3.765
0.665 4.546
0.675 5.436
0.685 6.447
0.695 7.578
0.705 8.827
0.713 9.643
0.718 9.273
0.725 6.548
0.735 4.716
0.745 3.205
0.755 2.177
0.765 1.479
0.775 1.004
0.785 C.682
0.795 0.463
0.805 C.315
0.815 0.214
0.825 C.145
0.835 C.C98
0.845 C.C67
0.855 C.C45
0.865 0.031
0.875 0.021
0.885 0.C14
0.895 C.C1C
0.905 0.007
0.915 0.C04
0.925 0.003
0.535 0.C02
0.945 0.C01
0.955 0.C01
0.965 0.C01
0.975 0.000
0.985 C.C00
0.995 0.C00
1.005 C.C0C
1.015 0.000
1.025 0.000
1.035 0.000
1.045 0.000
1.055 C.0CC
1.065 0.000
1.075 0.000
1.085 C.000
1.095 0.C00
1.105 C.C00
1.115 0.C00
1.125 0.000
1.135 0.000
JIEXI/DELEX VS. EPSLON


XAE-1 YAE-5
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10²
4.50
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
0.479 0.001
0.476 0.002
0.482 0.003
0.489 0.005
0.496 0.008
0.503 0.013
0.510 0.021
0.518 0.033
0.526 0.049
0.535 0.C72
0.544 0.103
0.553 0.144
0.562 0.198
0.572 0.267
0.582 0.357
0.591 0.471
0.601 0.615
0.611 0.796
0.621 1.020
0.631 1.296
0.641 1.632
0.651 2.037
0.661 2.522
0.671 3.095
0.681 3.767
0.691 4.546
0.701 5.438
0.711 6.448
0.721 7.575
0.731 8.828
0.736 9.844
0.743 9.273
0.751 8.948
0.761 4.719
0.771 3.206
0.781 2.177
0.791 1.479
0.801 1.004
0.811 0.682
0.821 0.463
0.831 0.315
0.841 0.214
0.851 0.145
0.861 0.C95
0.871 0.C67
0.881 0.045
0.891 0.031
0.901 0.021
0.911 0.014
0.921 0.010
0.931 0.007
0.941 0.004
0.951 0.003
0.961 0.002
0.971 0.001
0.981 0.001
0.991 0.001
1.001 0.000
1.011 0.000
1.021 0.000
1.031 0.000
1.041 0.000
1.051 0.000
1.061 0.000
1.071 0.000
1.081 0.000
1.091 0.000
1.101 0.000
1.111 0.000
1.121 0.000
1.131 0.000
1.141 0.000
1.151 0.000
1.161 0.000
JIETI/DELET VS. EPST



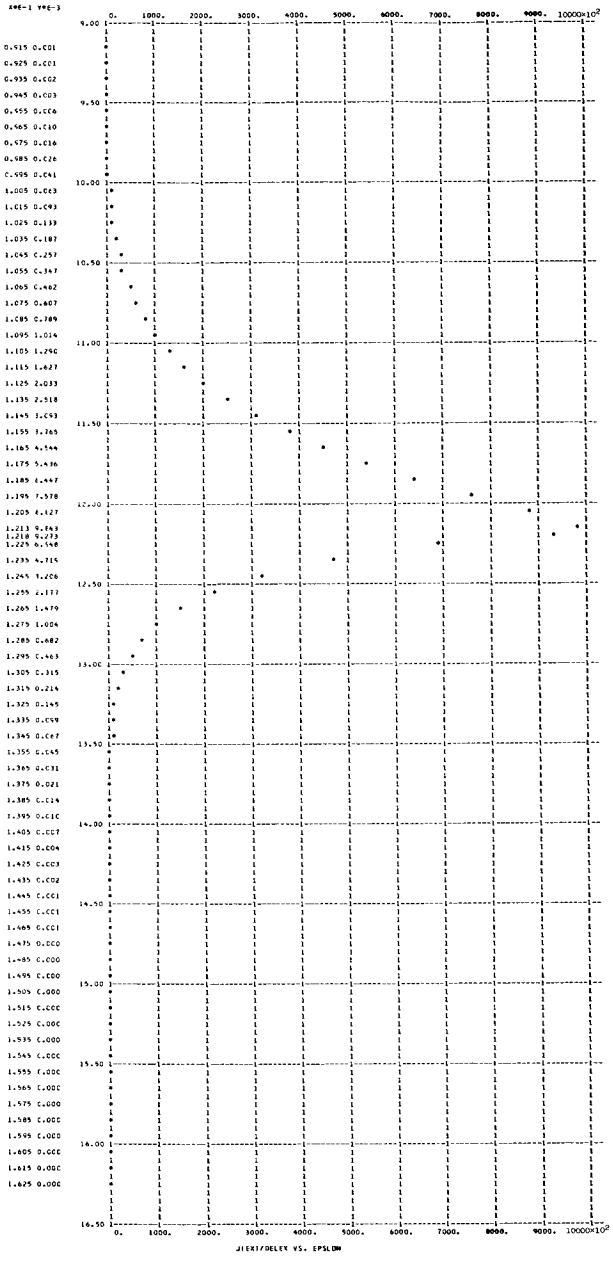


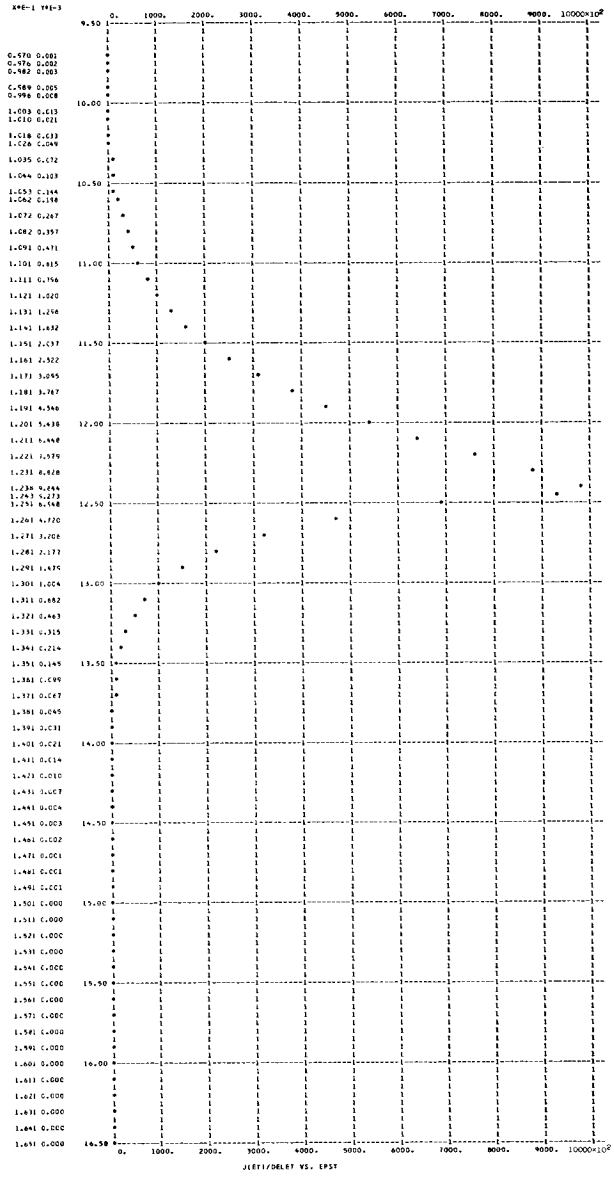
T = 0.3000000E 04 E = 0.31622784E 08 PHI = 4.00 AMU = 10.00 EVMAX = 12.1508

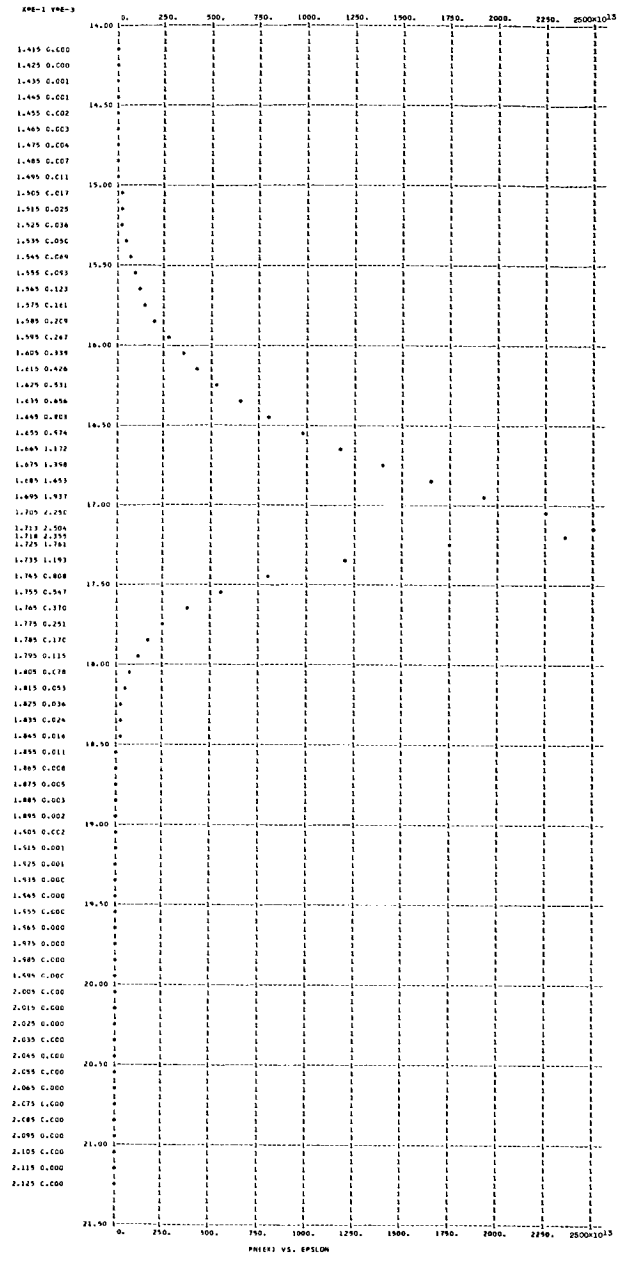
NEM = 0.14377540E 24 NEE = 0.25152641E 17 VXAV = 0.20459238E 09 KEXAV = 0.11905548E 02 KEXFL = 0.24379420E 10

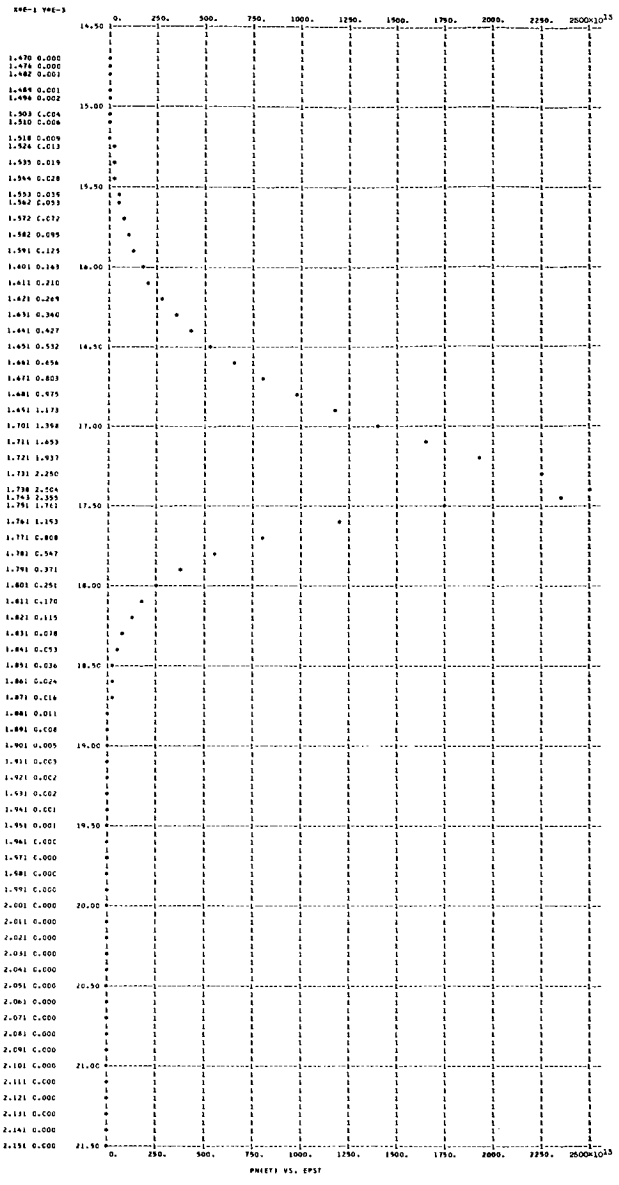
J = 0.824395E 06 KETAV= 0.121646E 02 KETFL= 0.249094E 10 TZERO = 0.941103E 05 TD = 0.204523E 04

Figure 3. - Continued.


X**E-1 Y**E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10²
JIEXI/DELEX VS. EPSLON


X**E-1 Y**E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10²
JIEYI/DELEY VS. EPSI



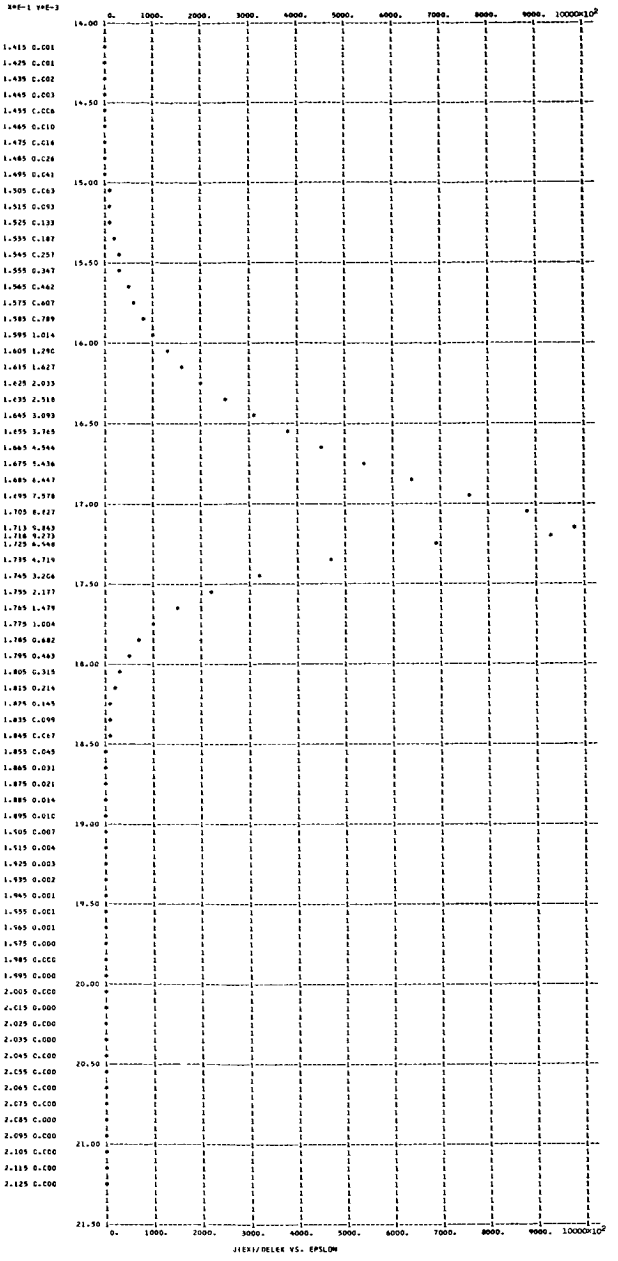


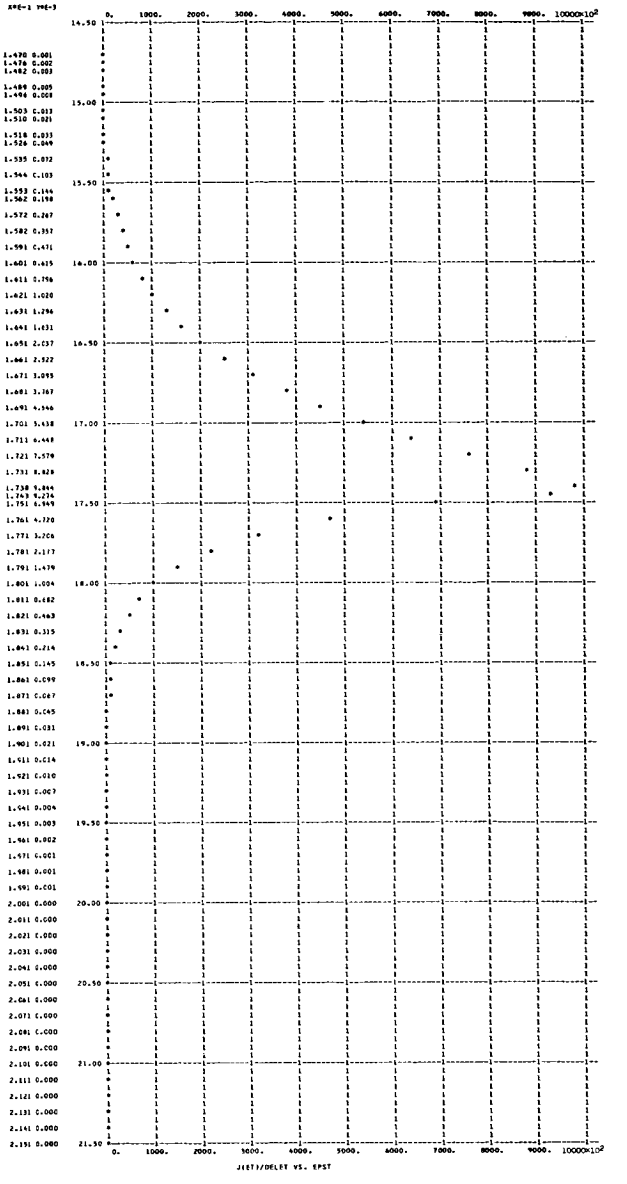
T = 0.300000C0E 04 E = 0.31622784E 08 PHI = 4.00 AMU = 15.00 EVMAX = 17.1508

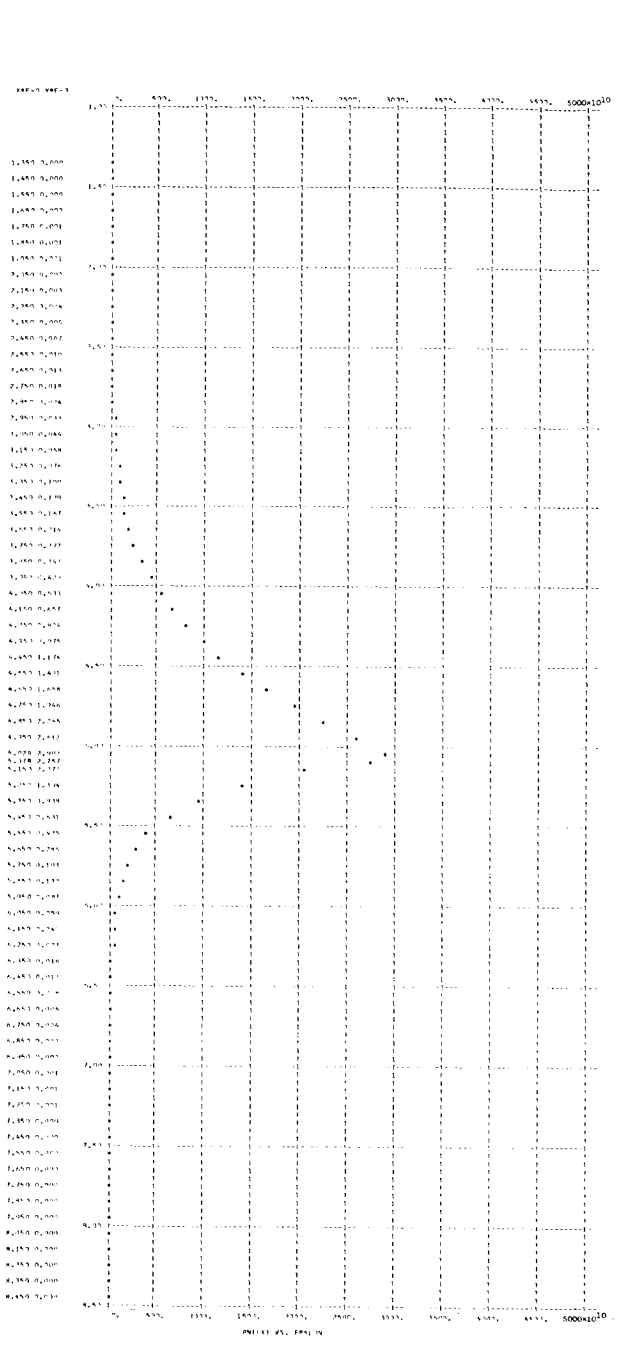
NEM = 0.26404823E 24 NEE = 0.21103447E 17 VXAV = 0.24384810E 09 KEXAV = 0.16908716E 02 KEXFL = 0.41249575E 10

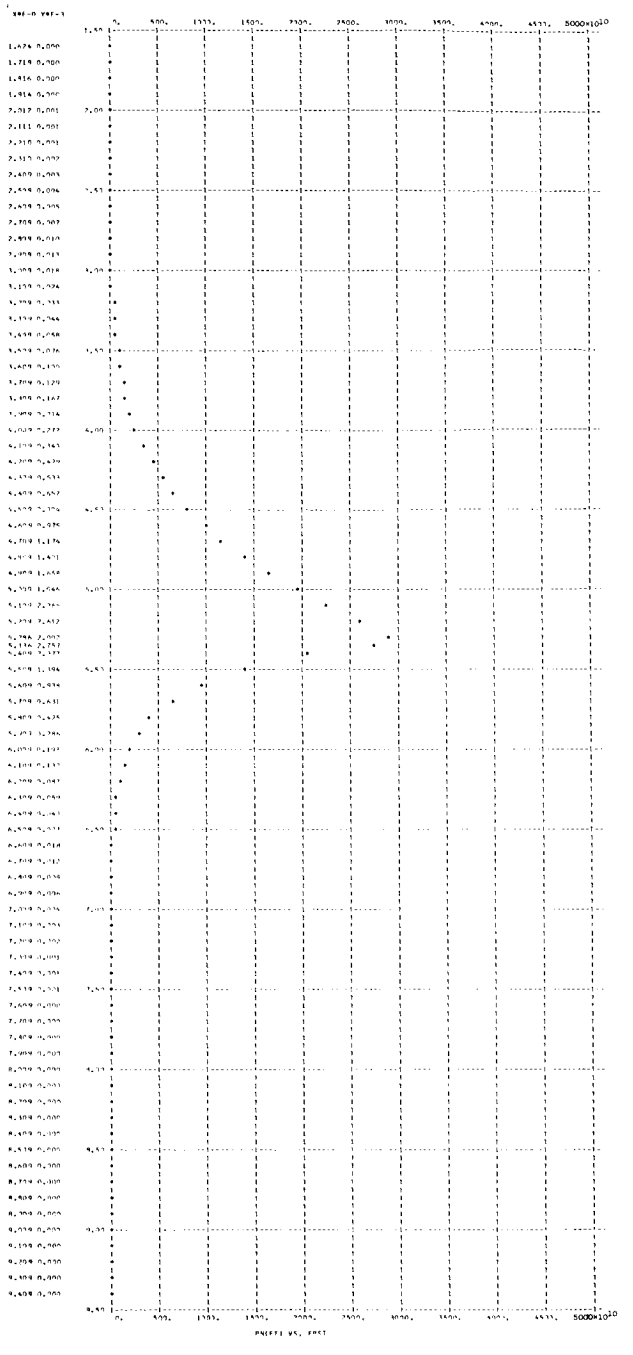
J = 0.824395E 06 KETAV= 0.171678E 02 KETFL= 0.418812E 10 TZERO = 0.132817E 06 TD = 0.203270E 04

Figure 3. - Continued.


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000*10²
J(EX)/DELEX VS. EPSLON


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000*10²
J(ET)/DELET VS. EPST



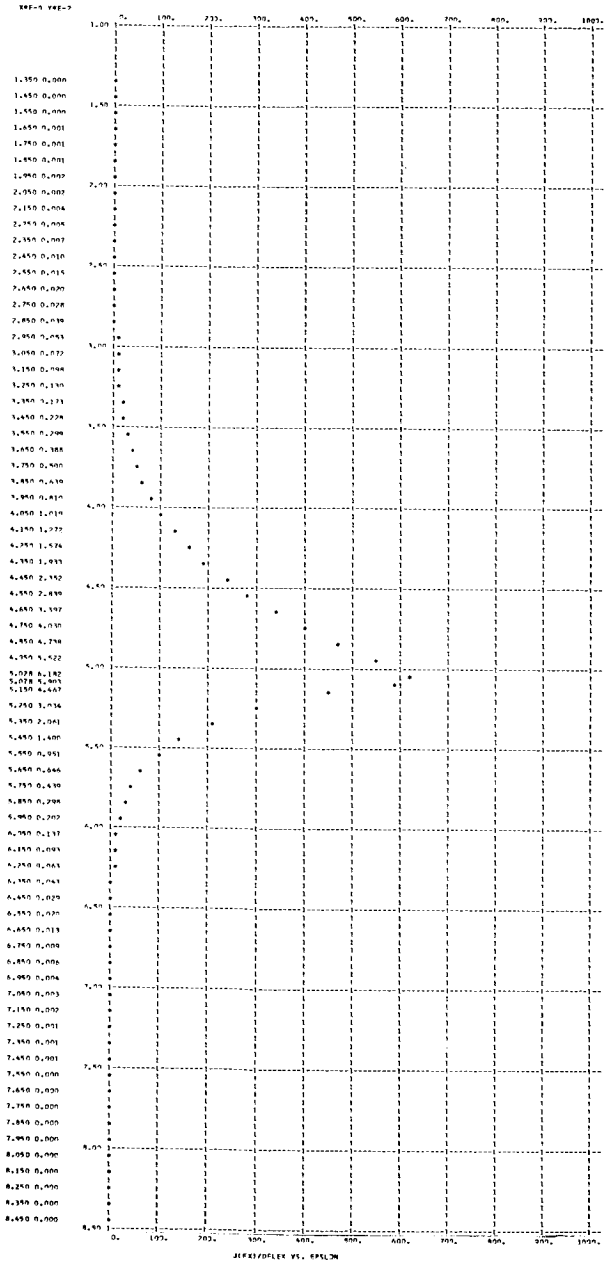


T = 0.3000000DE 04 E = 0.31522784E 08 PHI = 6.30 AMU = 1.00 EVMAX = 5.0550

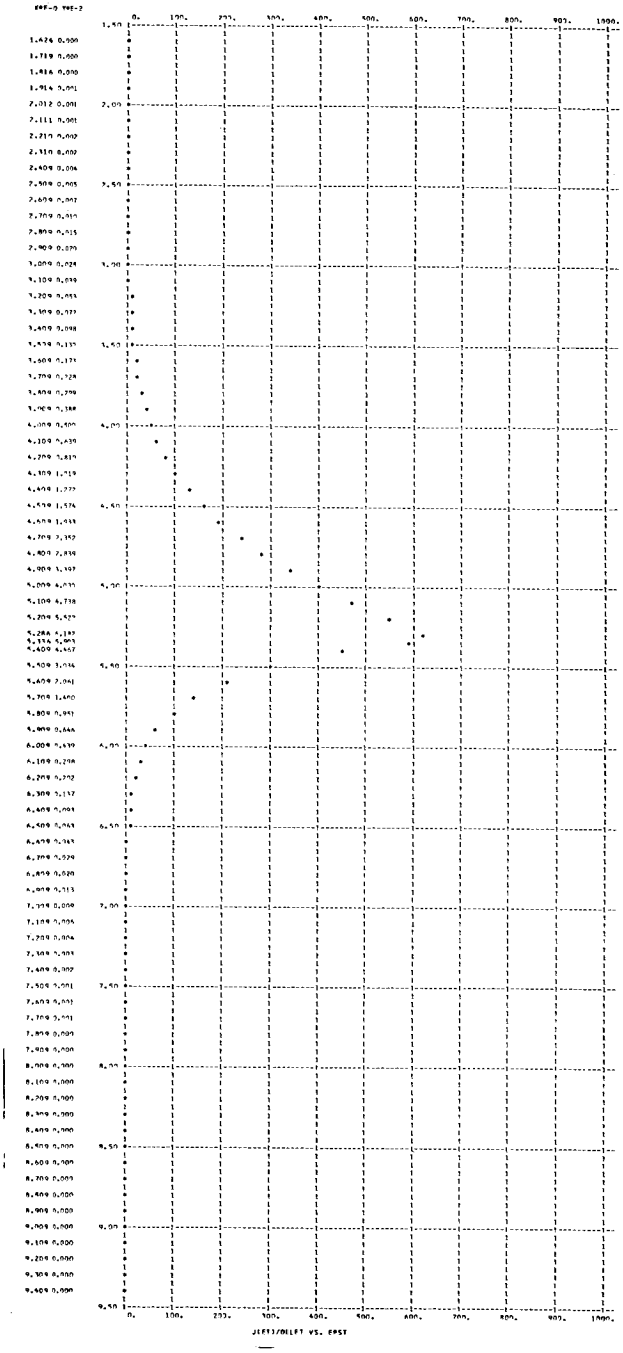
NEM = 0.49014194E 22 NEE = 0.25152137E 14 VXAV = 0.12953378E 09 KEXAV = 0.47853542E 01 KEXFI = 0.52358300E 03

J = 0.5218866 03 KETAV= 0.5043572E 01 KETFI= 0.6570756E 09 EZERO = 0.3991918E 05 TJ = 0.2115120E 04

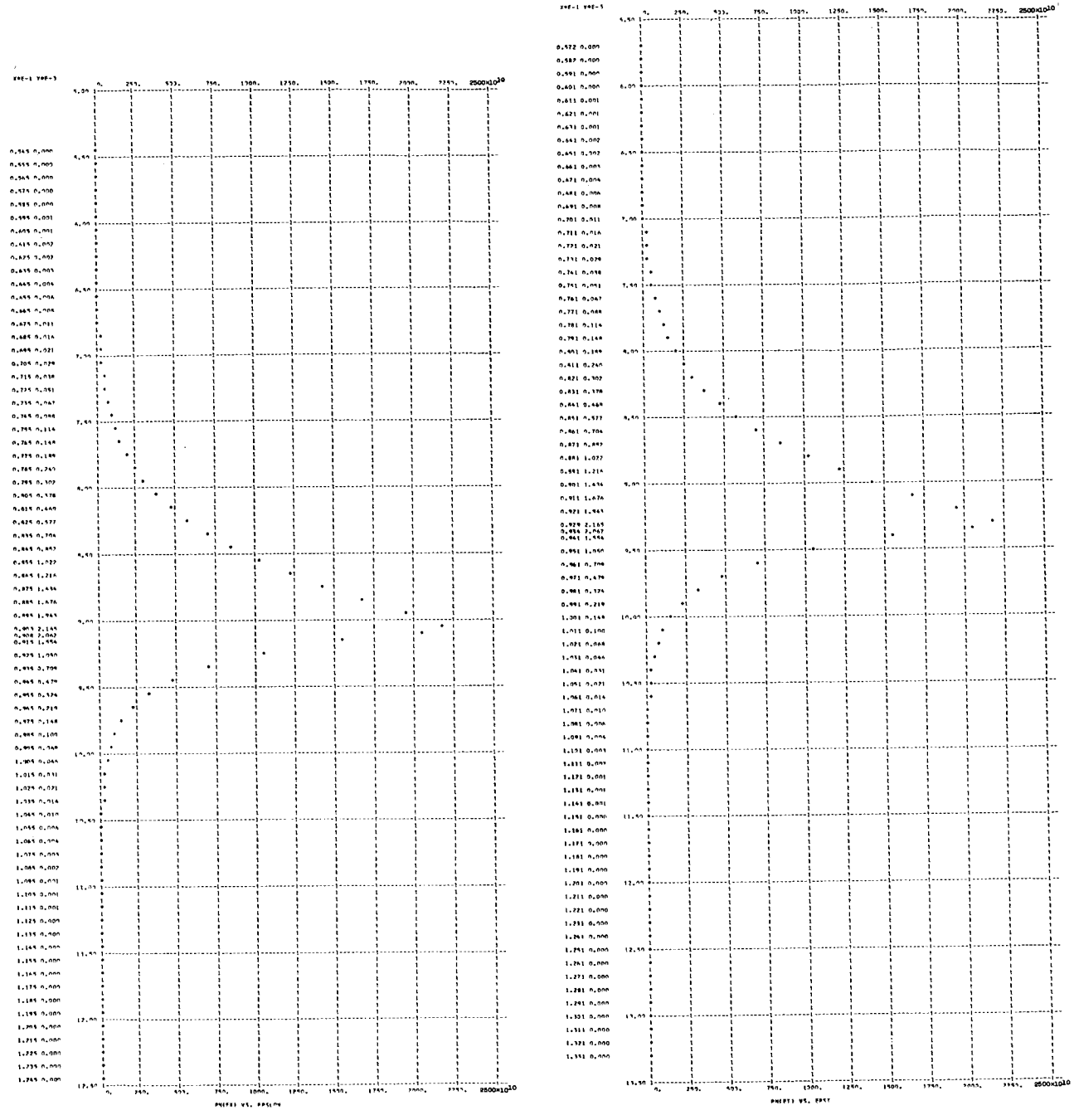
Figure 3. - Continued.



JERK)/DELEX VS. EPSLON



JERK)/DELEY VS. EPSY

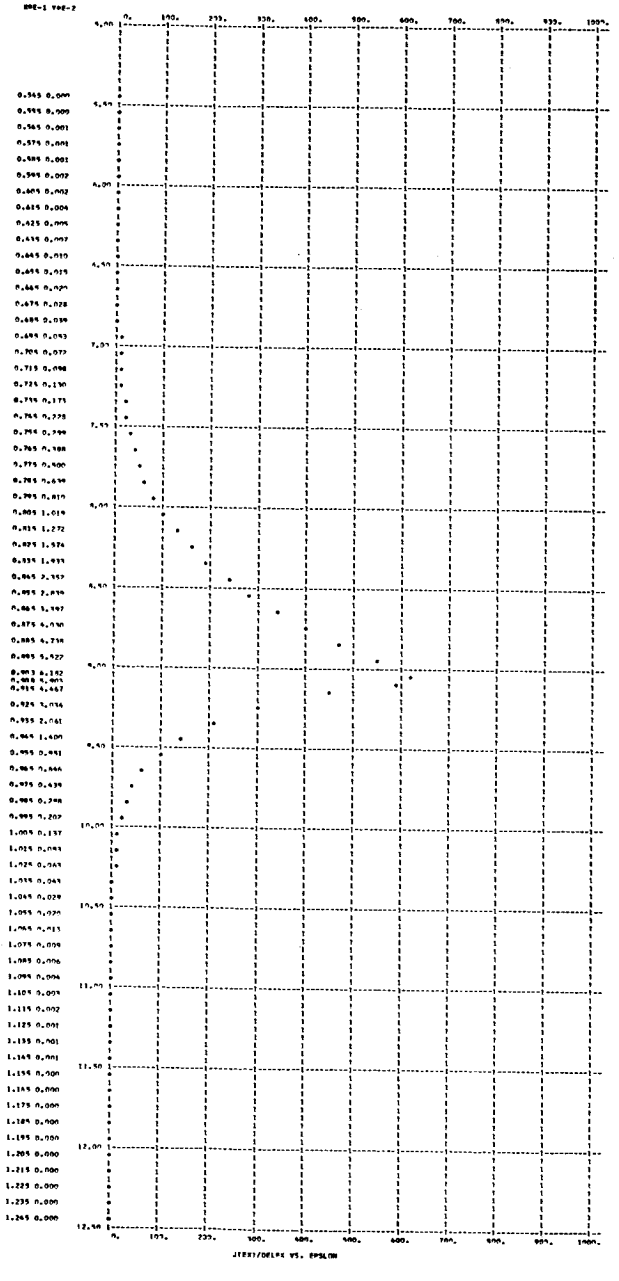


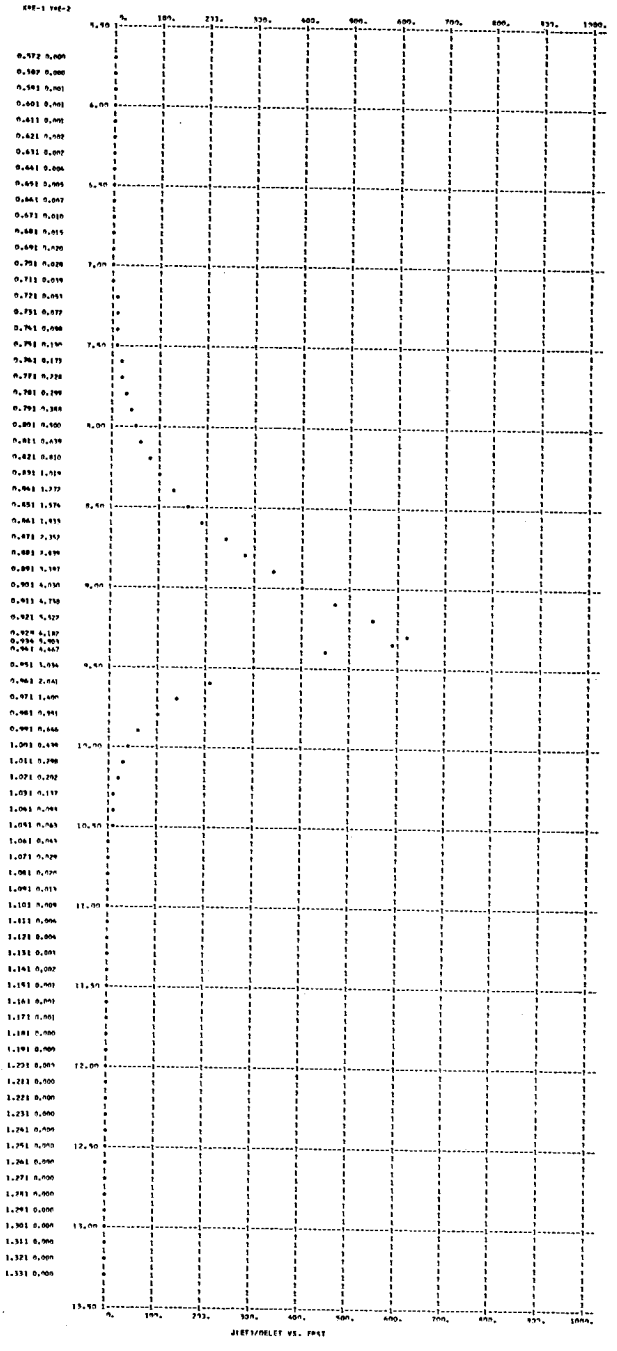
T = 0.30000000E 04 E = 0.31522784E 09 PHI = 6.00 AMJ = 5.00 EVMAX = 0.0559

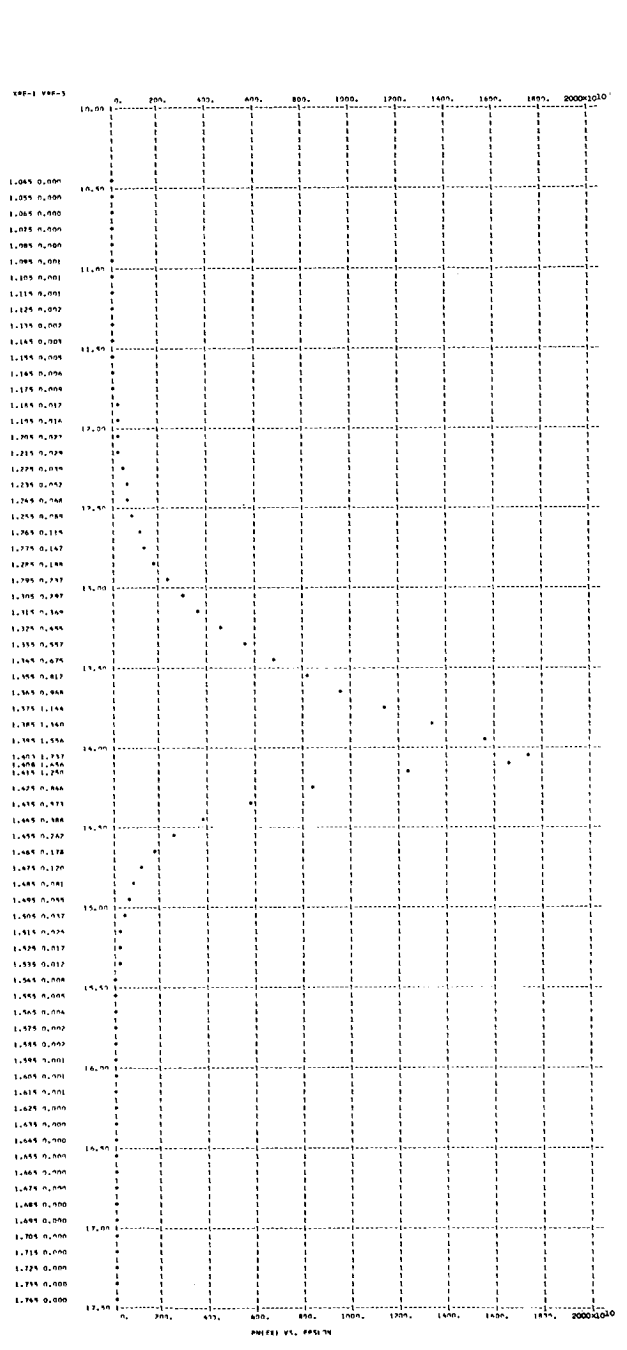
NEM = 0.50929833E 23 NEE = 0.18525491E 14 VXAV = 0.17586881E 09 KEXAV = 0.87990355E 01 KEXEL = 0.15499695E 10

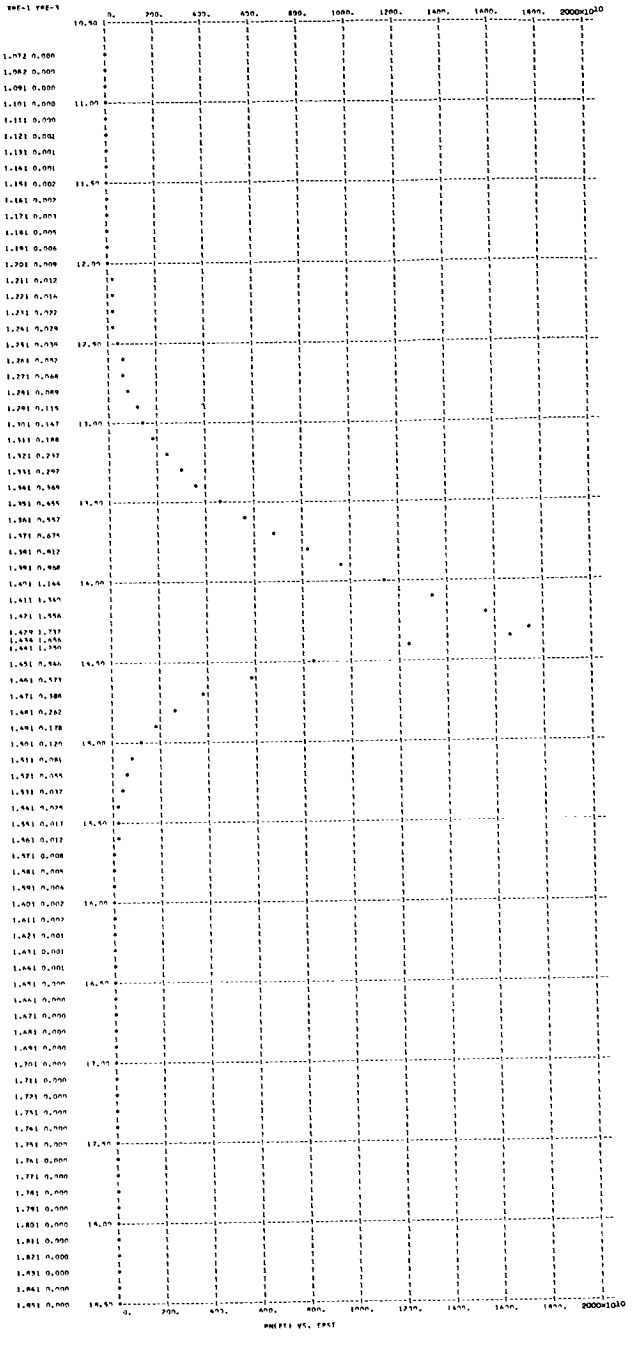
J = 0.52188B1E 03 KETAV= 0.905755E 01 KETEL= 0.159543E 10 TZERO = 0.7007Z9E 05 TJ = 0.205942E 04

Figure 3. - Continued.







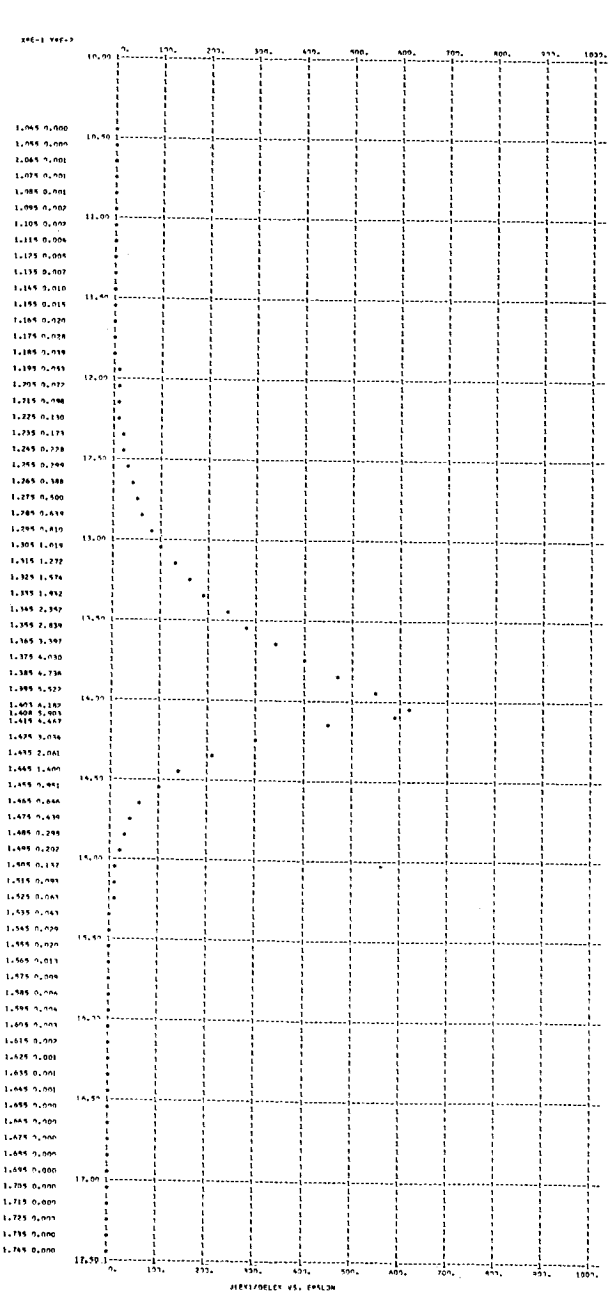


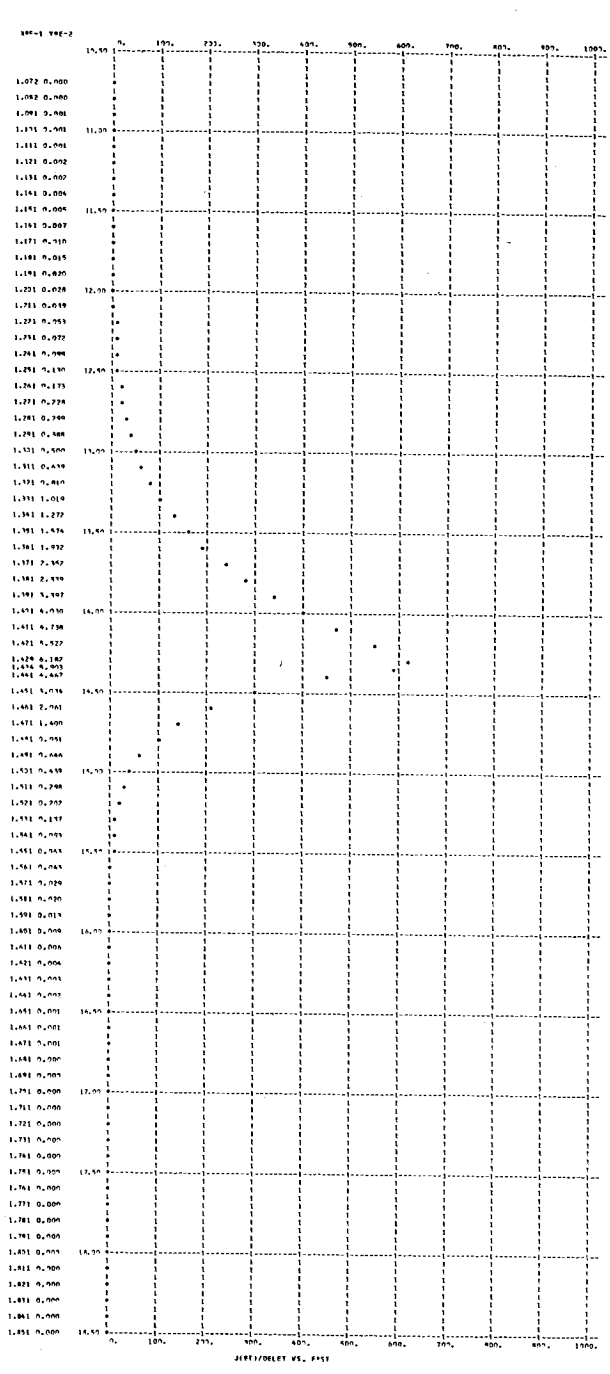
T = 0.300000000E 04 E = 0.31522784E 08 PHI = 6.00 AMJ = 10.00 EVMAX = 14.0559

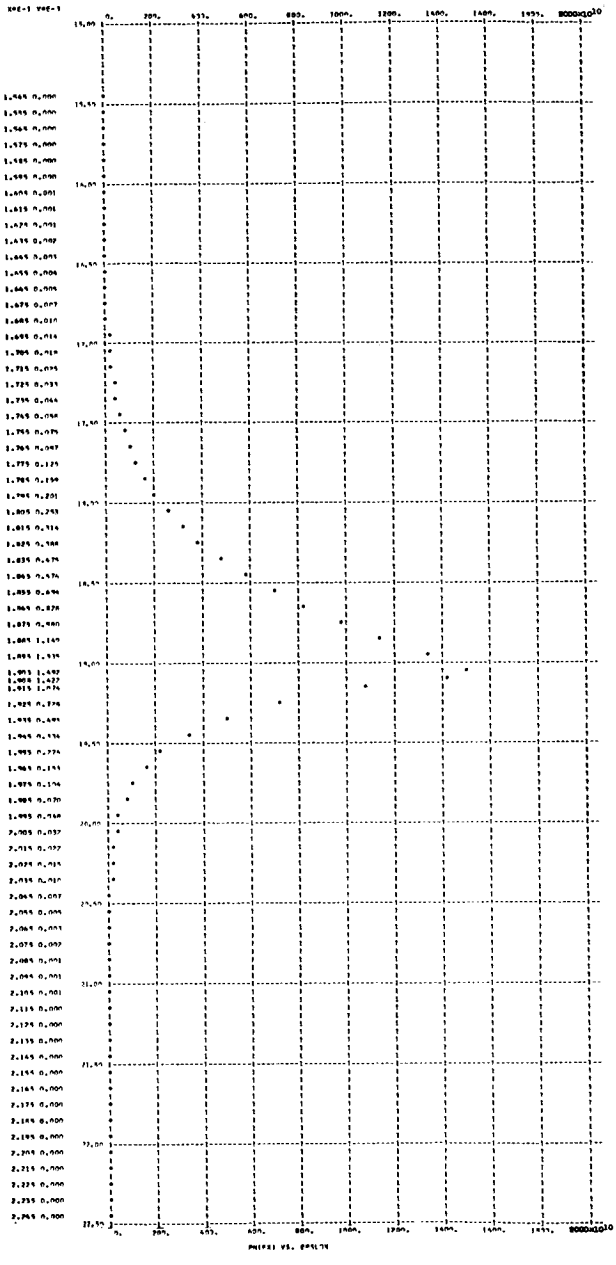
NEM = 0.14377540E 24 NEE = 0.14786296E 14 VXAV = 0.22031759E 00 KEXAV = 0.13804678E 02 KEXEL = 0.30435149E 10

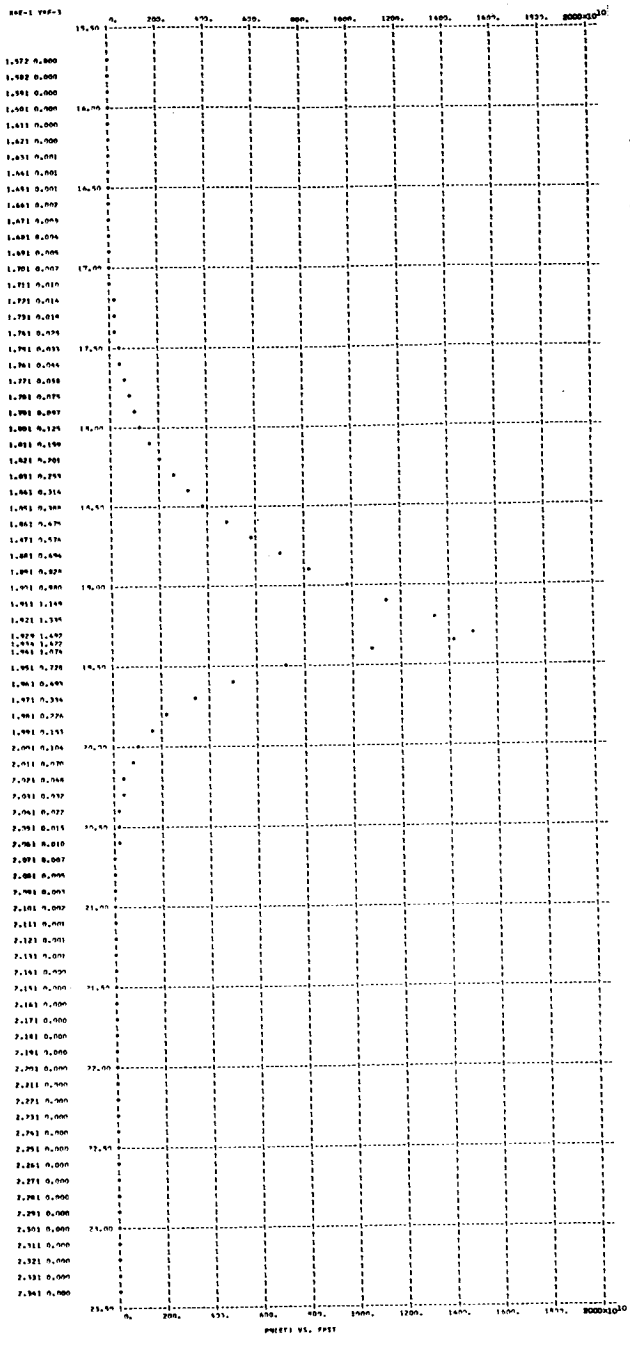
J = 0.521881E 03 KETAV= 0.140532E 02 KETEL= 0.310047E 10 TZERO = 0.108799E 06 TJ = 0.203715E 04

Figure 3. - Continued.


JERK1/DELER VS. EPSL3N


JERK1/DELET VS. FAST



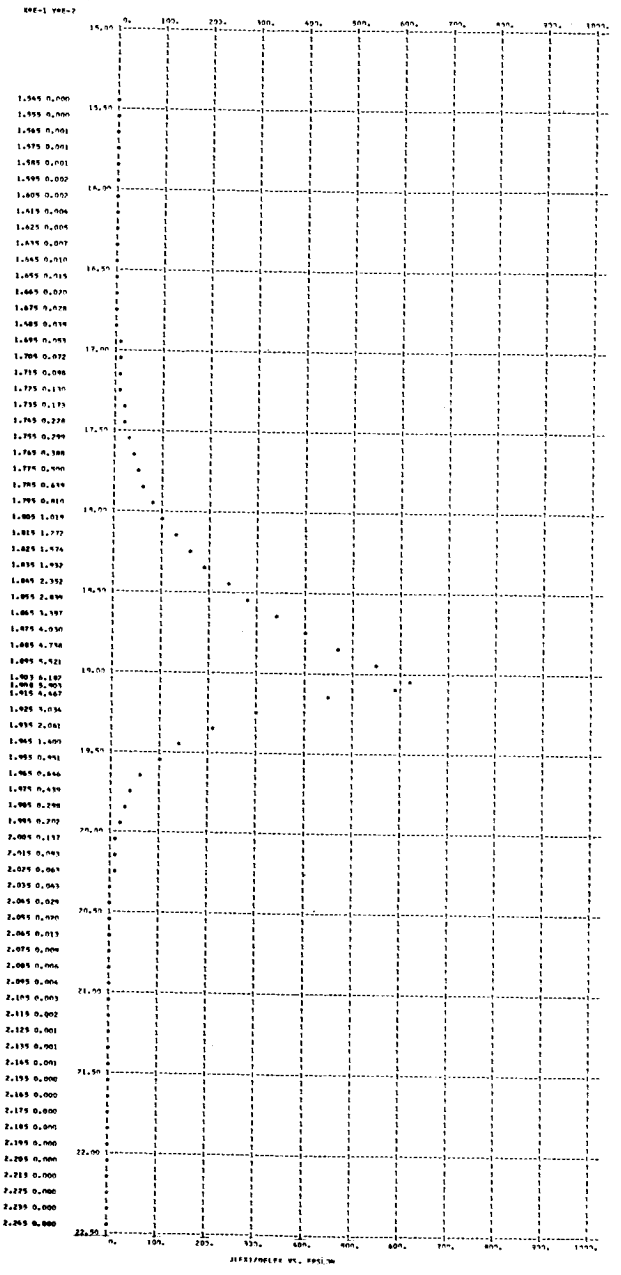


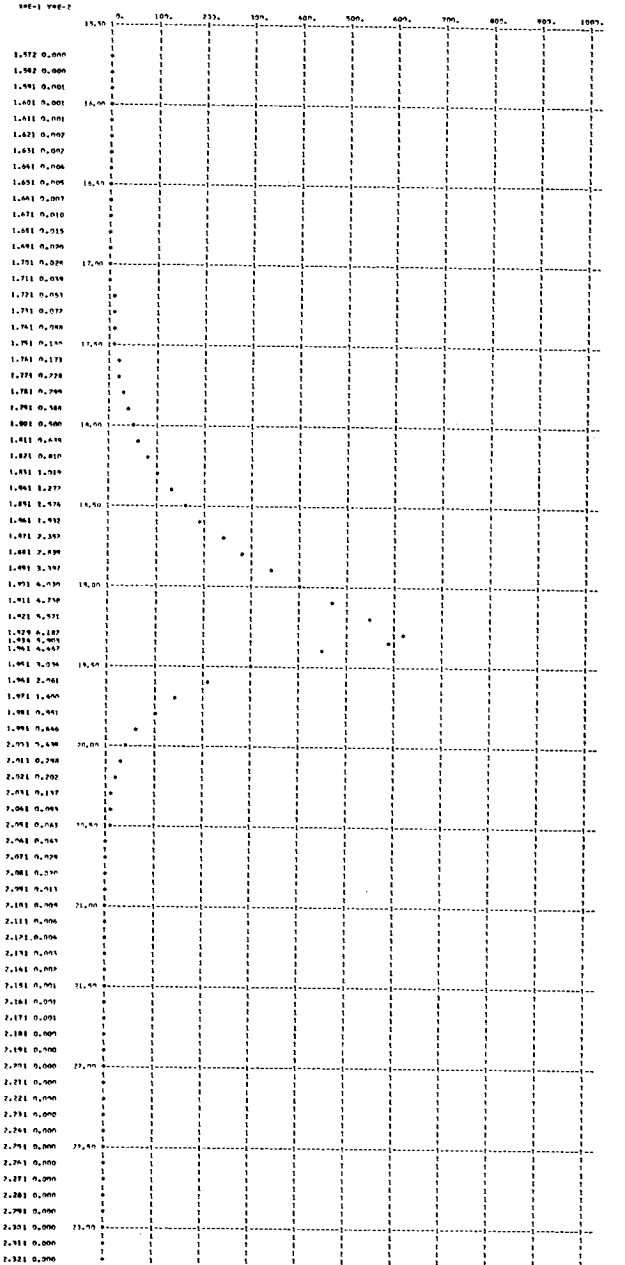
T = 0.30000000E 04 E = 0.31522784E 03 PHI = 6.00 AMU = 15.00 EVMAX = 19.0559

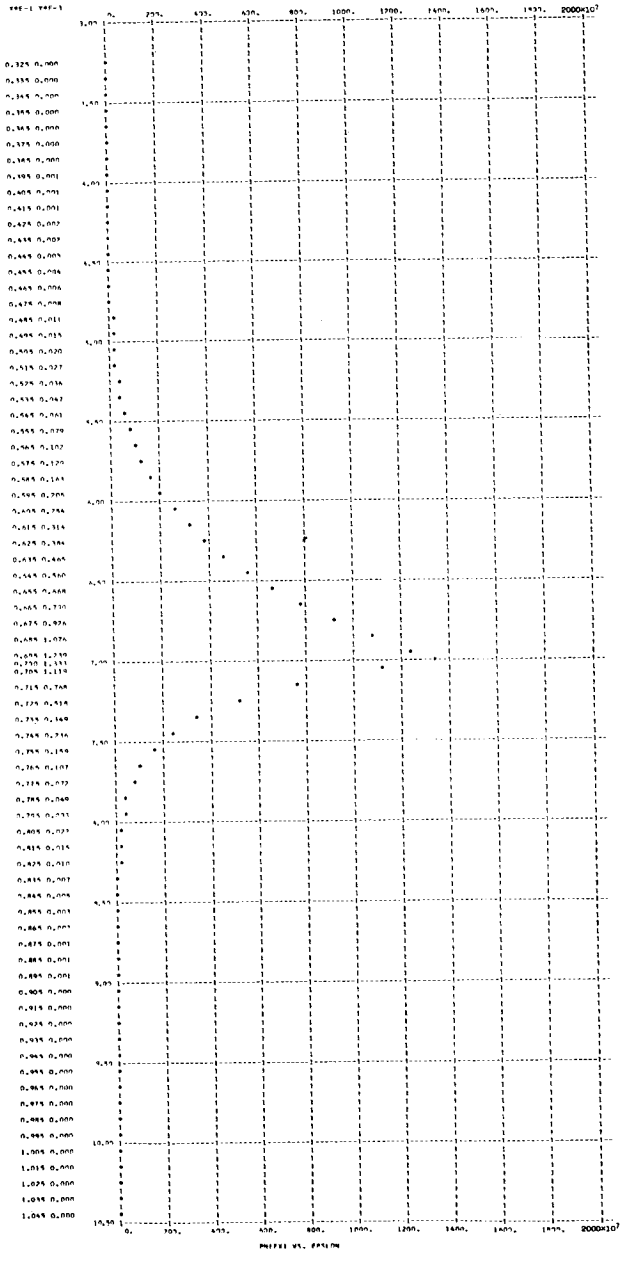
NEM = 0.26404823E 24 NEE = 0.12566993E 14 VXAV = 0.25717810E 09 KEXAV = 0.18807257E 02 KEXEL = 0.4838606?E 10

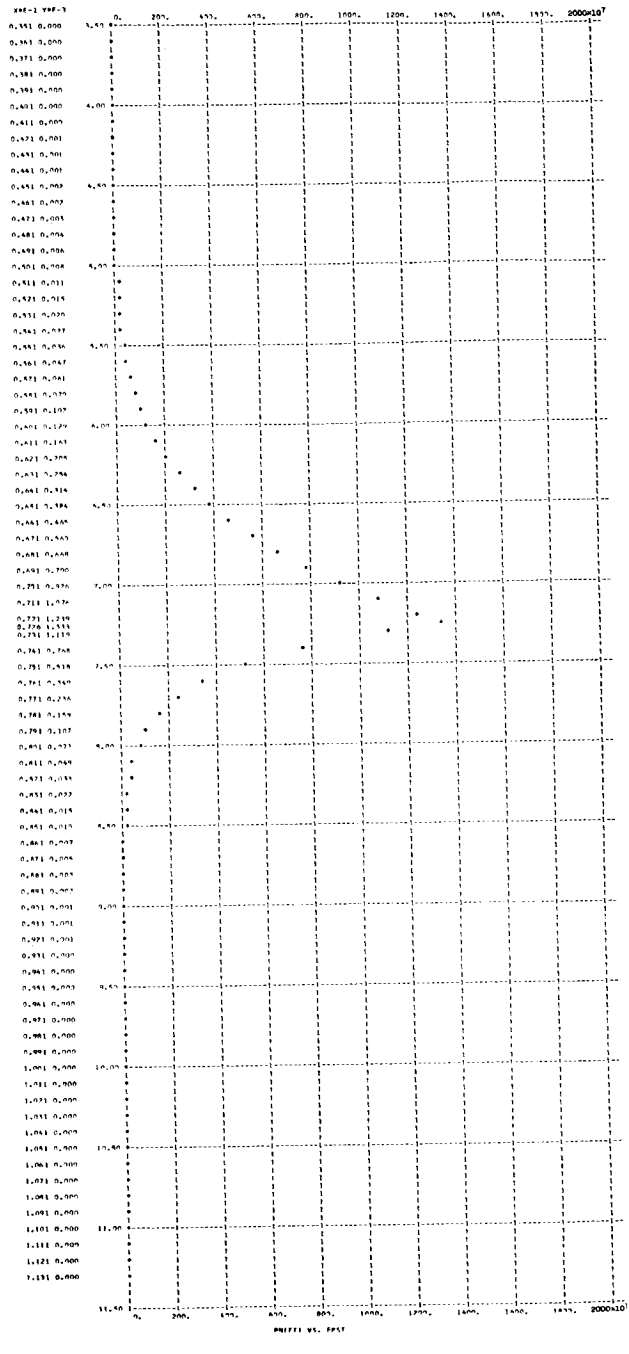
J = 0.5?1879E 03 KETAV= 0.190538E 02 KETEL= 0.4905?9E 10 TZERO = 0.1475?0E 06 TJ = 0.?027?0E 04

Figure 3. - Continued.







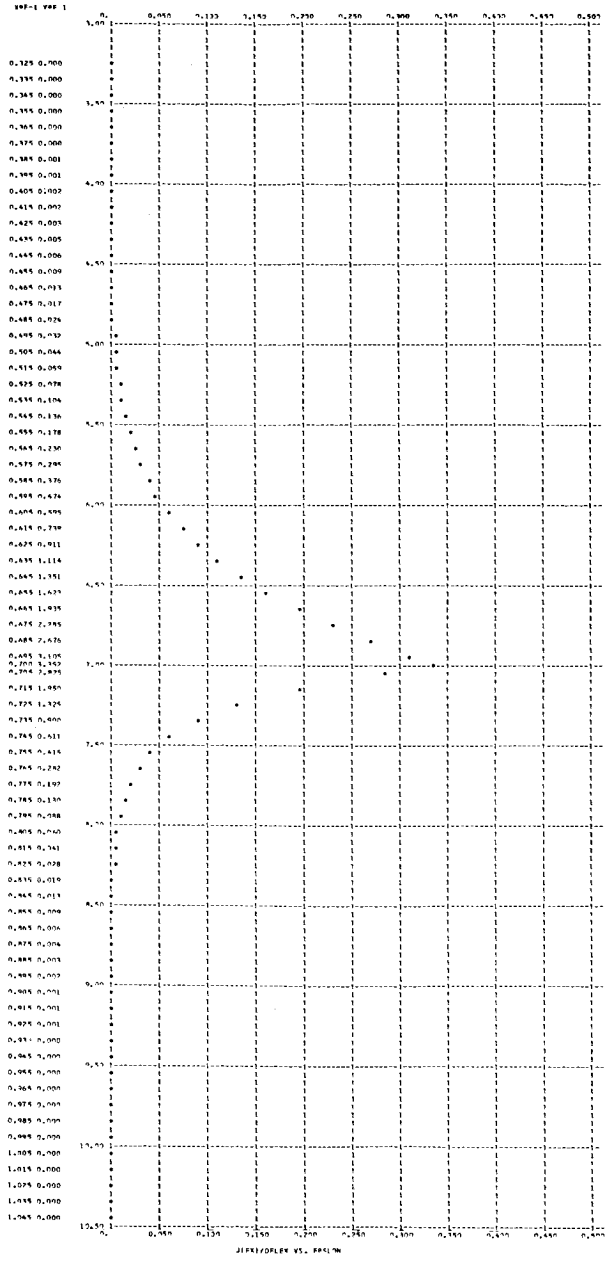


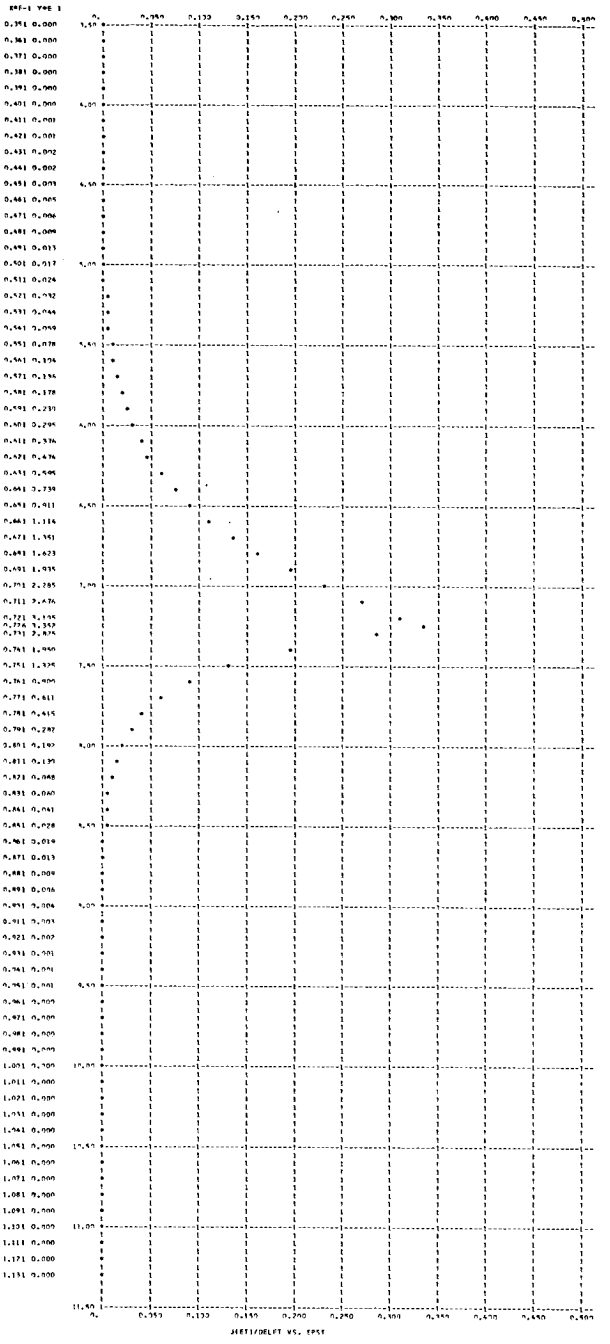
T = 0.30000000E 04 F = 0.31622784E 09 PHI = 8.00 AMU = 1.00 EVMAX = 7.0085

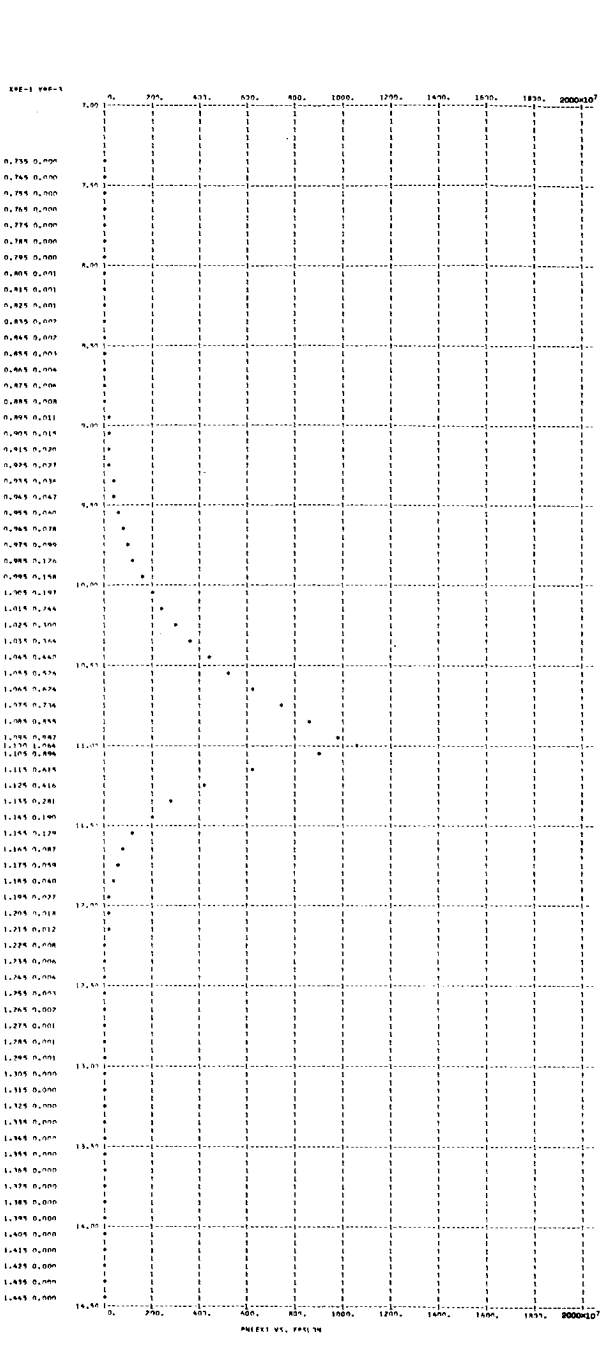
NEM = 0.49014194E 22 NEE = 0.11099798E 11 VXAV = 0.15393140E 09 KEXAV = 0.67456728E 01 KEXEL = 0.19415166E 10

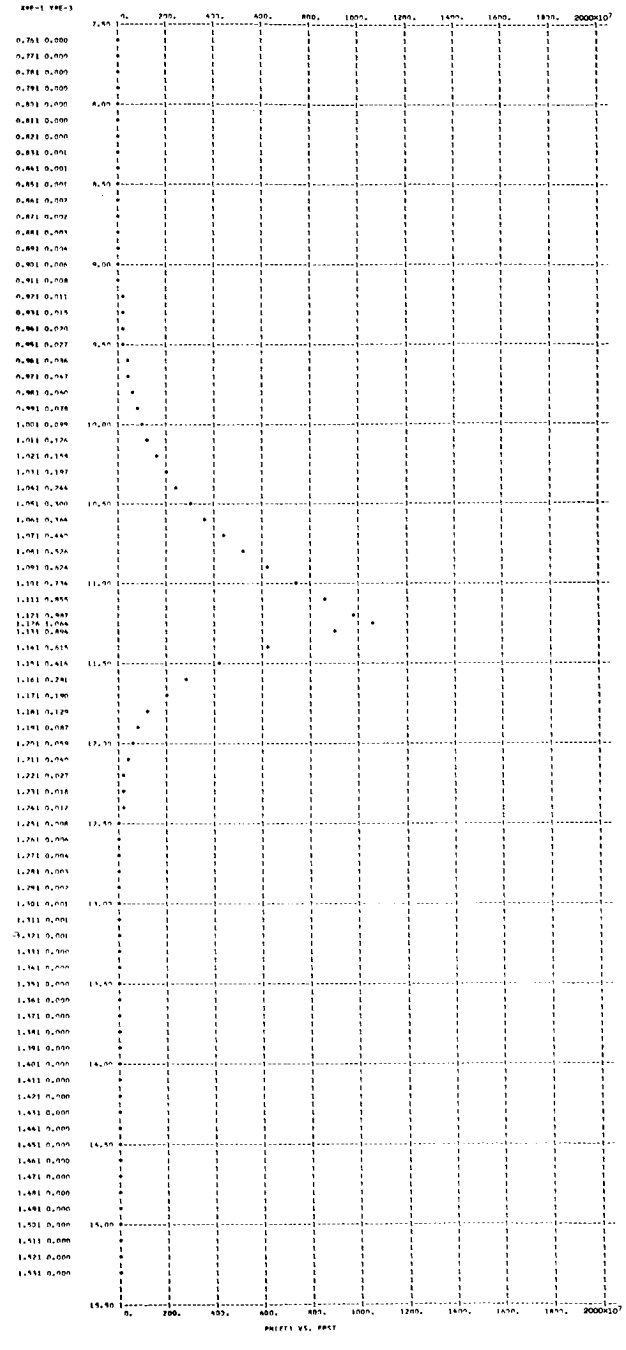
J = 0.273719E-00 KETAV= 0.700519E 01 KETEL= 0.108141E 10 TZERO = 0.541950E 05 TO = 0.207225E 04

Figure 3. - Continued.







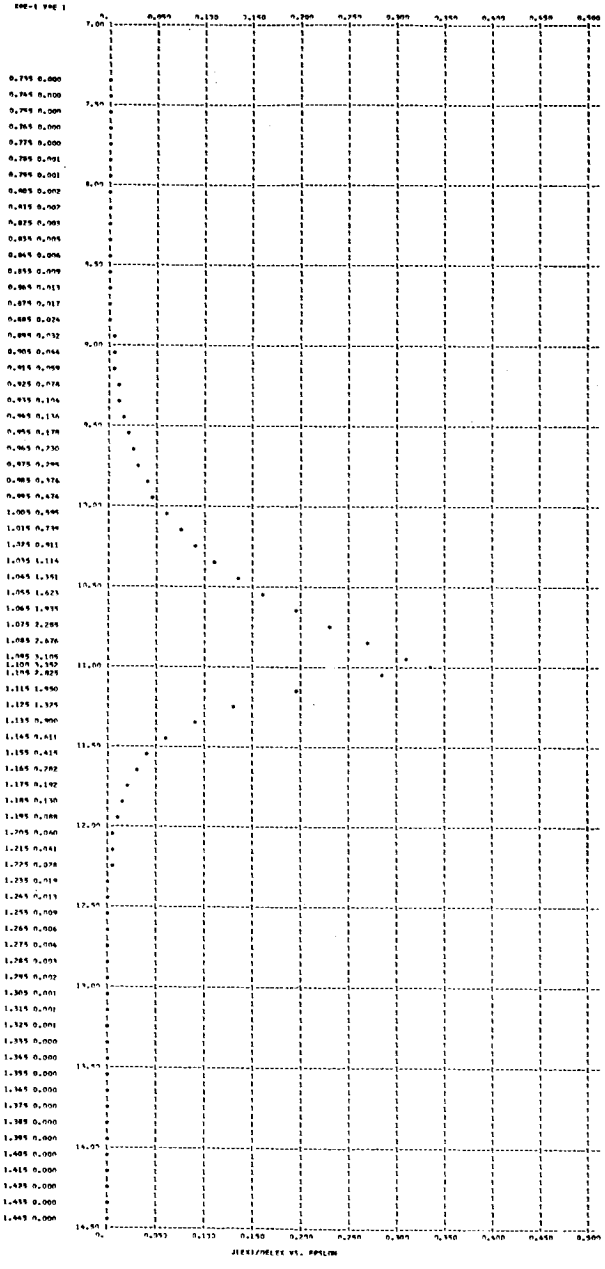


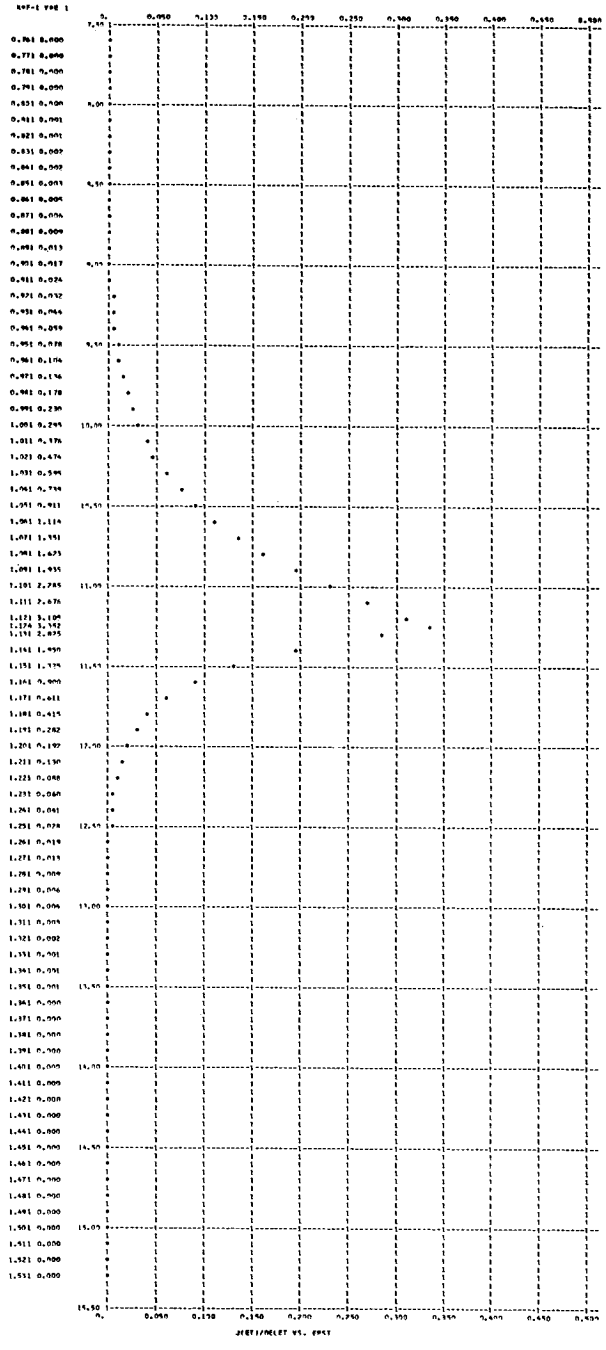
T = 0.300000000E 04 E = 0.31522784E 09 PHI = 8.00 AMU = 5.00 EVMAX = 11.0385

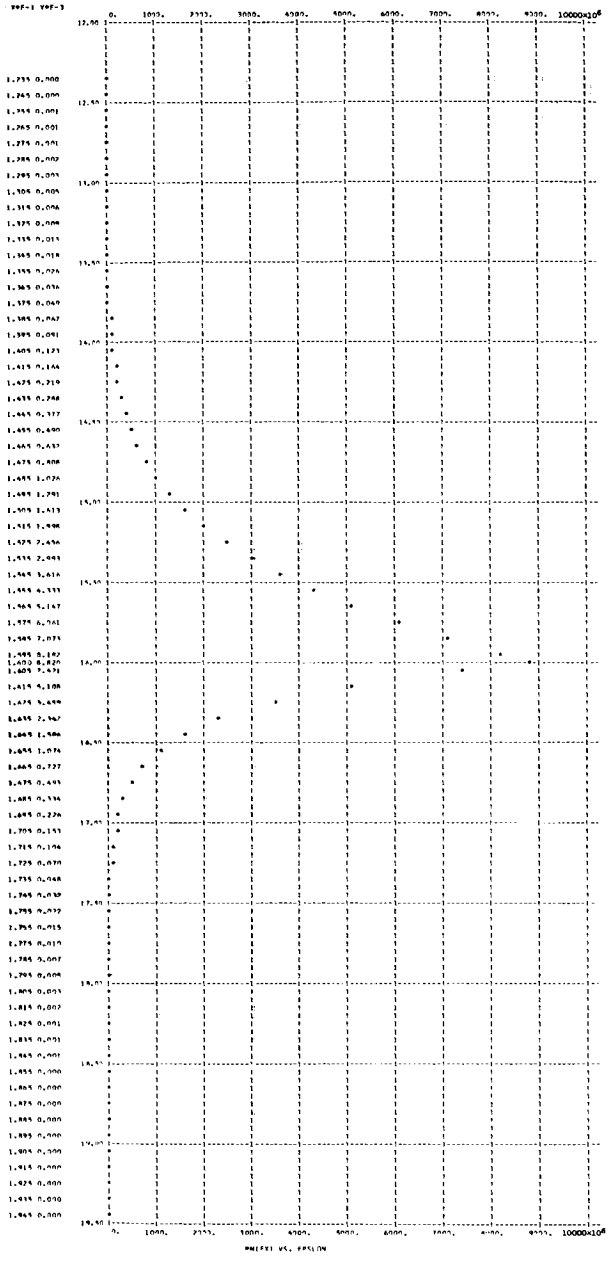
NFM = 0.509298336 23 NEF = 0.879740746 10 VXAV = 0.194437276 09 KEXAV = 0.107544266 02 KEXEL = 0.220346936 10

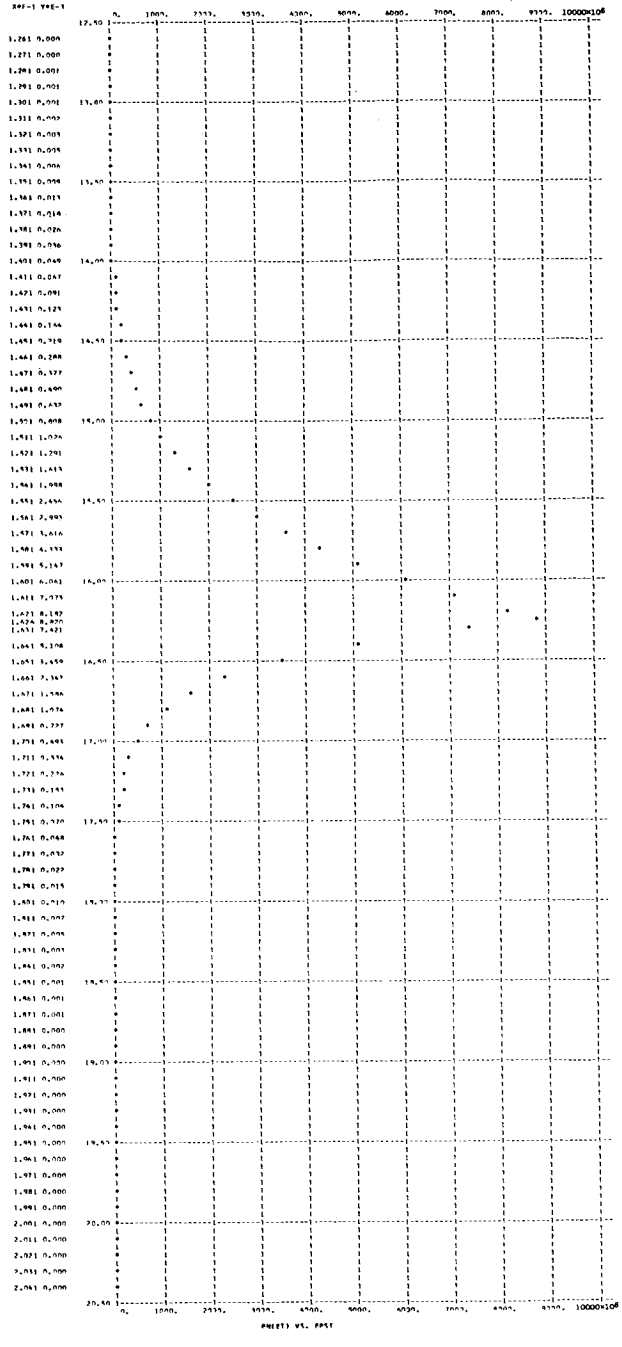
J = 0.273718E-00 KETAV= 0.110129E 02 KETEL= 0.214372E 10 TZERO = 0.852005E 05 TO = 0.204813E 06

Figure 3. - Continued.







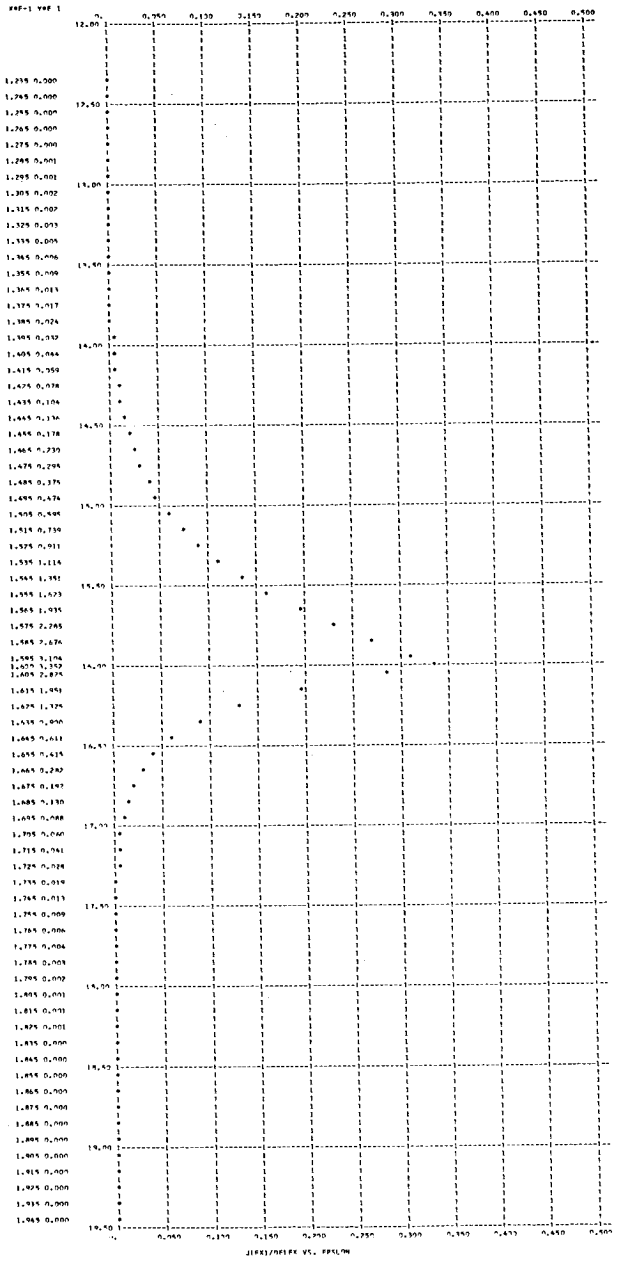


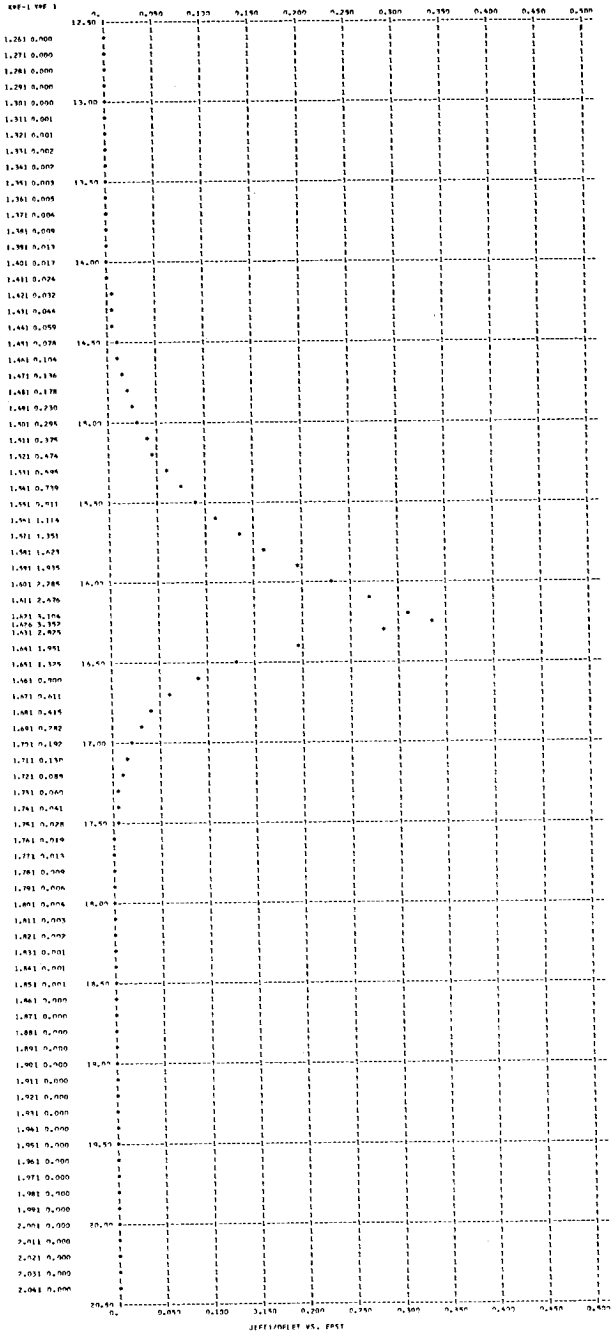
T = 0.300000000E 04 E = 0.31522784E 09 PHI = 8.00 AMJ = 10.00 EVMAX = 16.2085

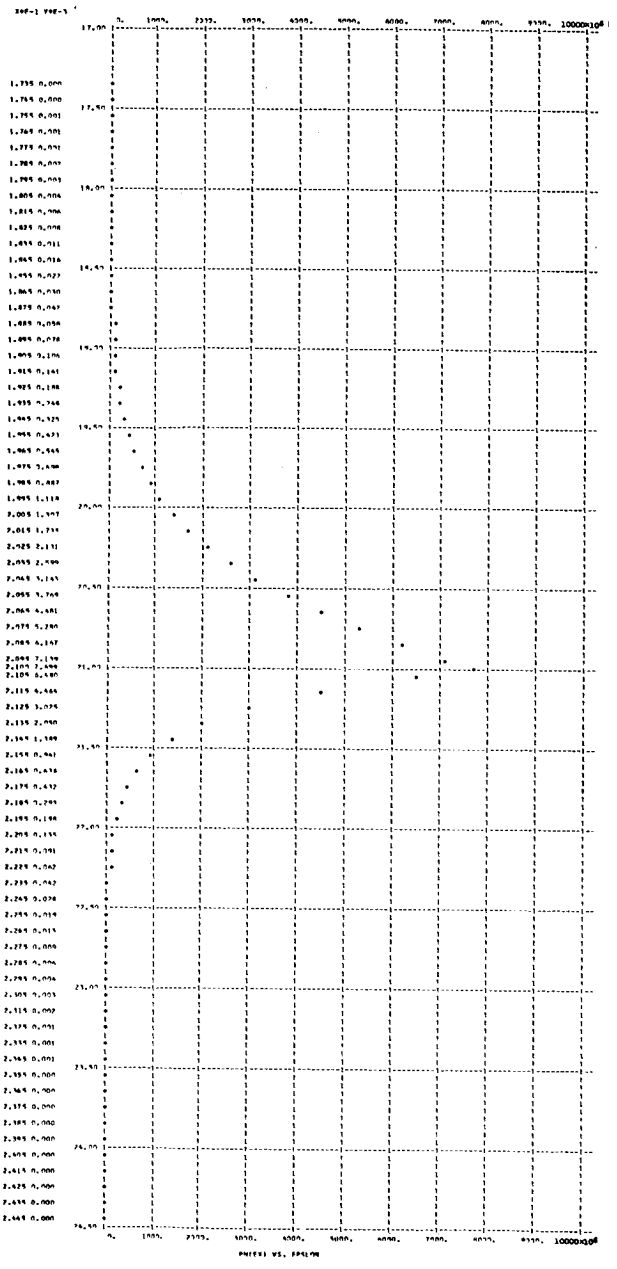
NEM = 0.14377540E 24 NEE = 0.72582107E 10 VXAV = 0.23540204E 09 KEXAV = 0.15759424E 02 KEXEL = 0.37115272E 10

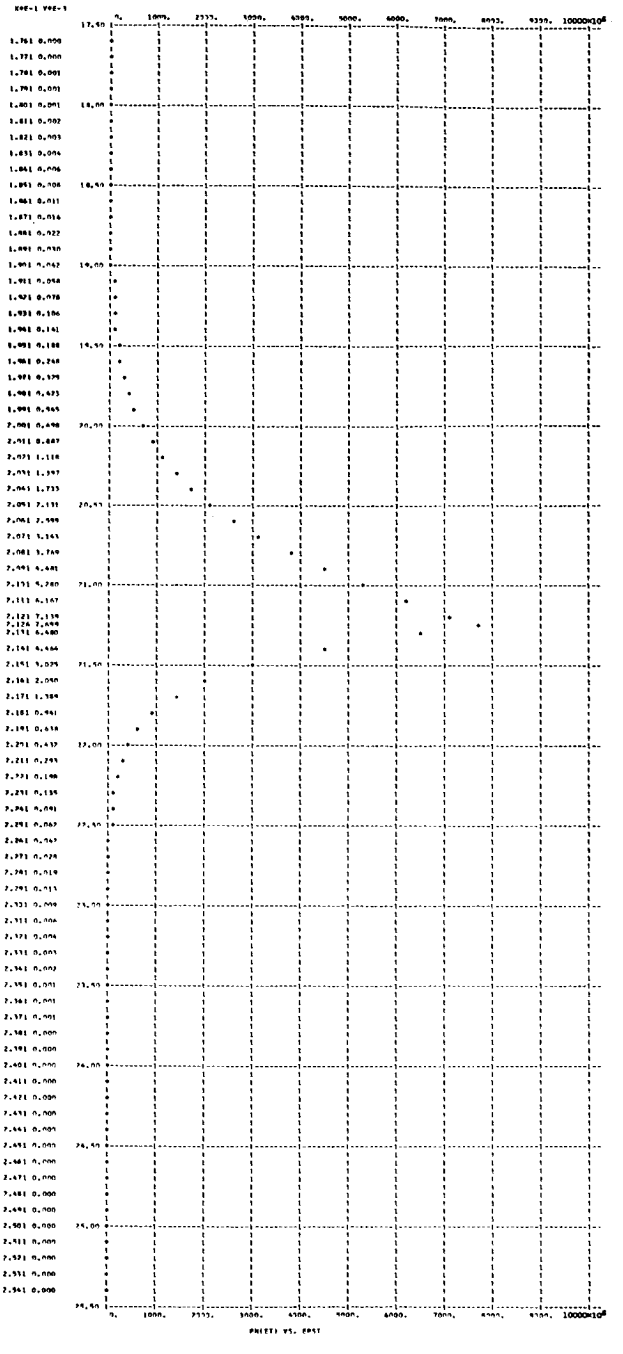
J = 0.273717E-09 KETAV= 0.169159E 02 KETEL= 0.377238E 10 TZERO = 0.1239135E 06 TJ = 0.303239E 04

Figure 3. - Continued.


JERK1/DELEX VS. EPSLON


JEET1/DELET VS. EPST



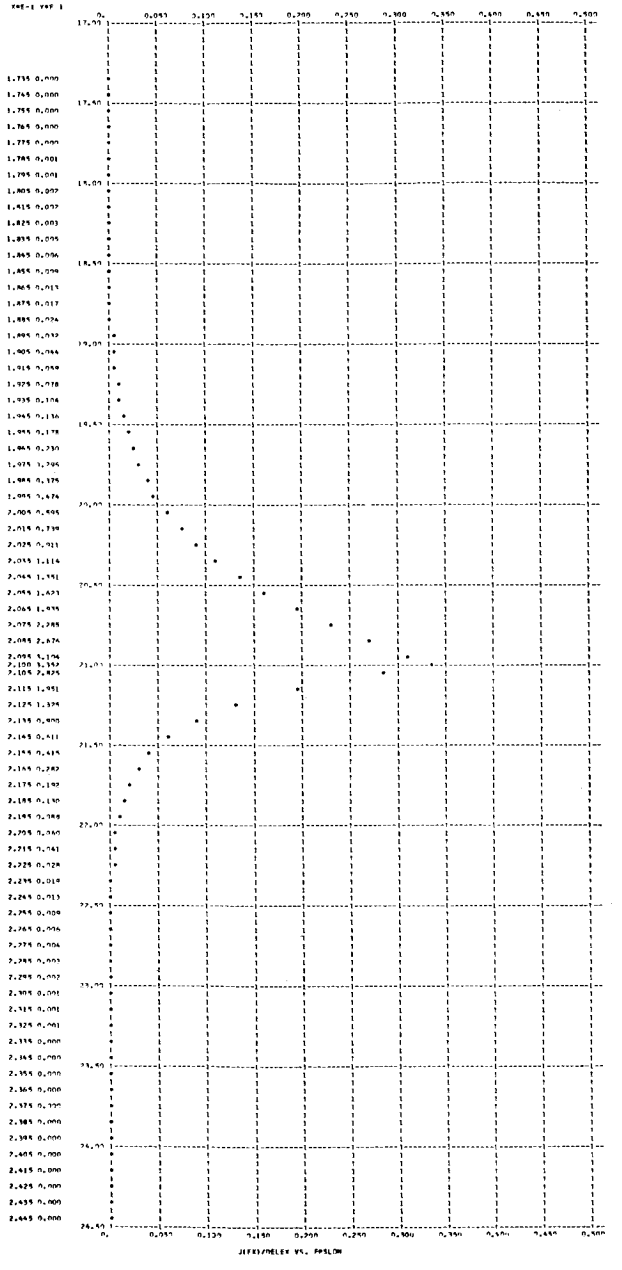


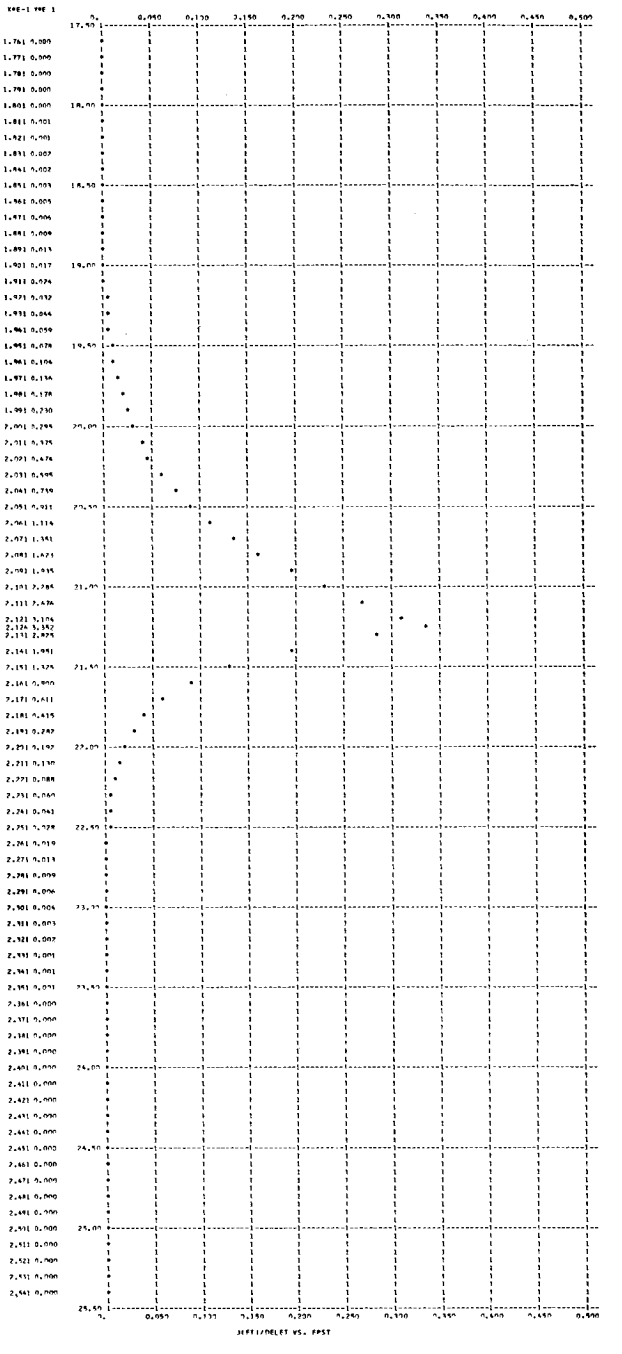
T = 0.30000000E 04 E = 0.31522784E 09 PHI = 8.00 AMU = 15.00 EVMAX = 21.0085

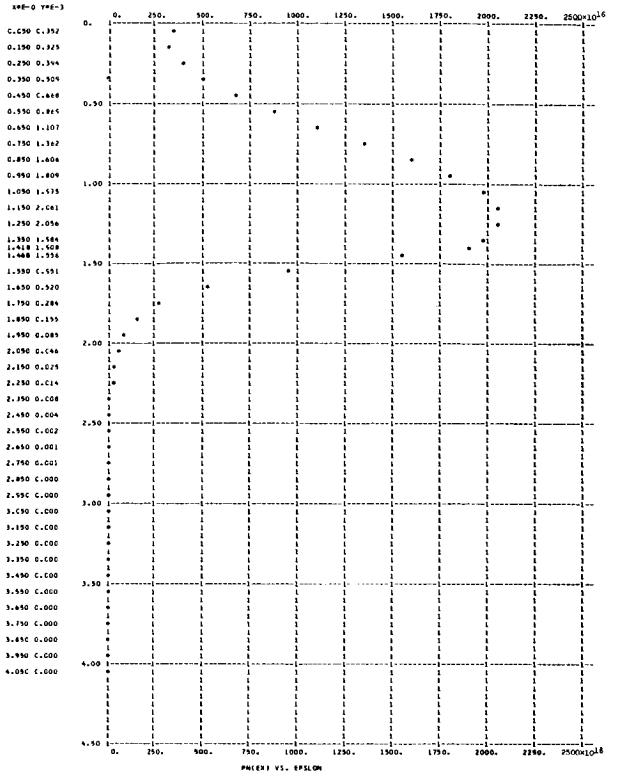
NEM = 0.26404823E 24 NEE = 0.63232724E 10 VXAV = 0.27020725E 09 KEXAV = 0.20760461E 02 KEXEL = 0.54113292E 10

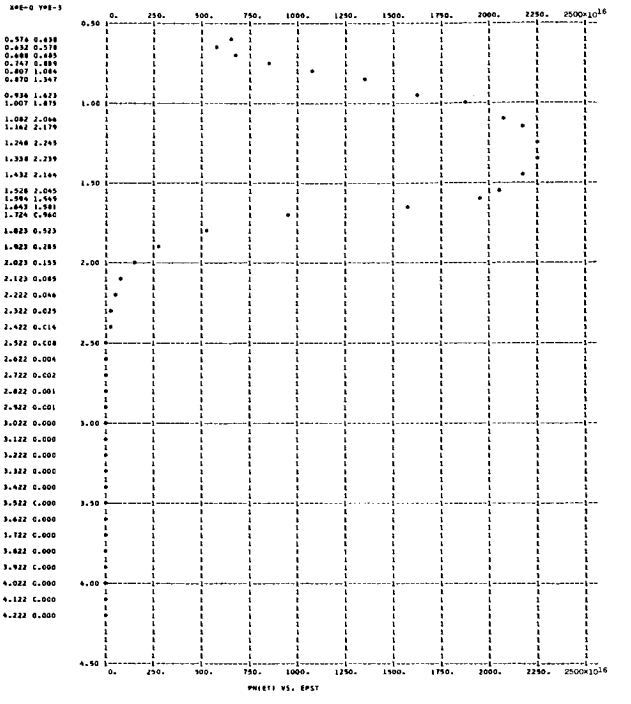
J = 0.27371?E-00 KETAV= 0.210190E 02 KETEL= 0.558118E 10 TZERO = 0.162611E 06 TJ = 0.202446E 04

Figure 3. - Continued.


XXE-1 YYF 1
JEFF3/MELEX VS. FPSLOW


XXE-1 YYE 1
JEFF3/MELET VS. FPST



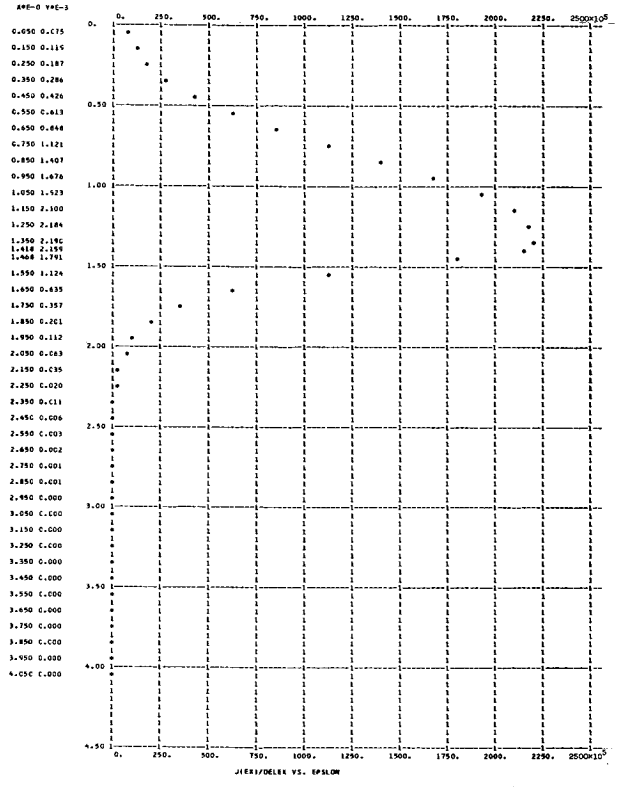


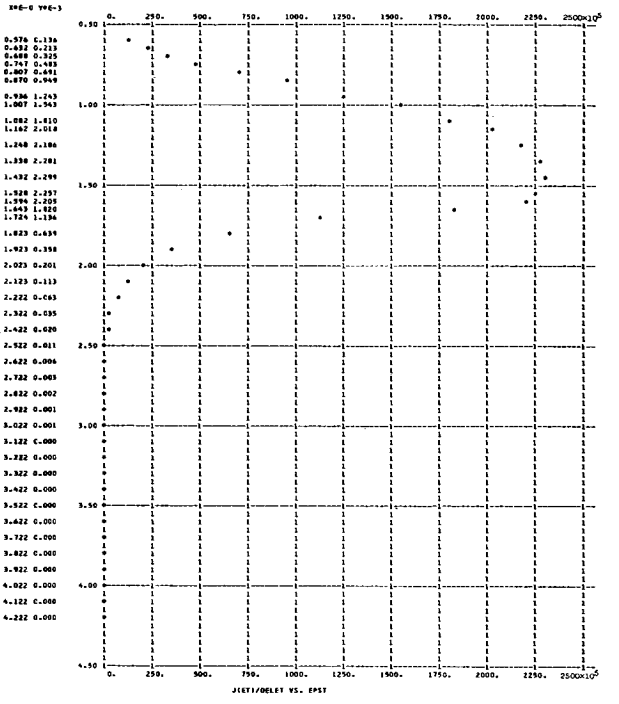
T = 0.20000000E 04 E = 0.31622784E 08 PHI = 2.00 AMU = 1.00 EVMAX = 1.4353

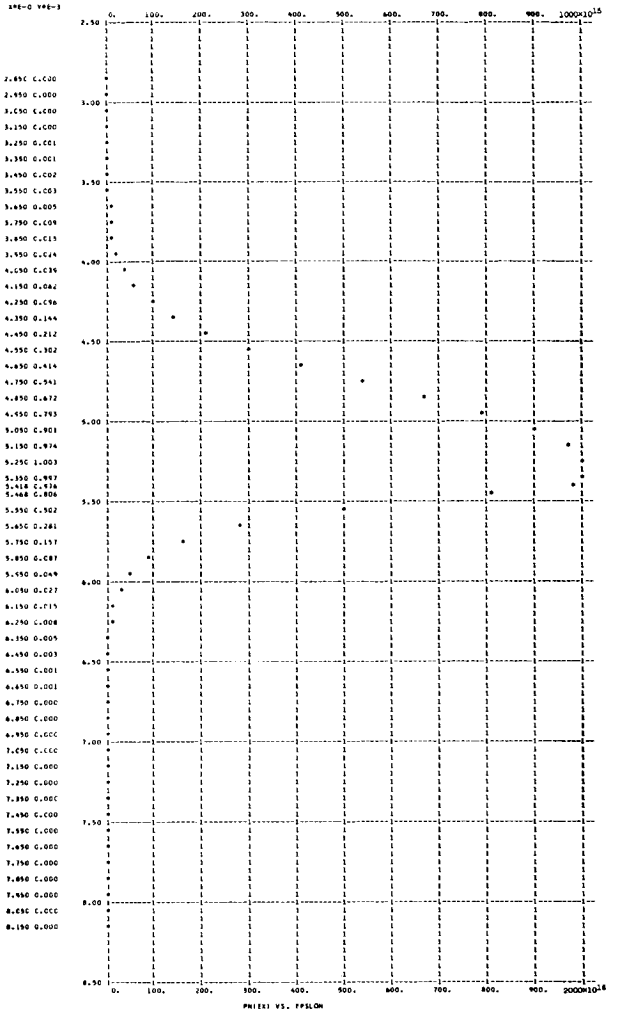
NEM = 0.46732326E 22 NEE = 0.21016237E 20 VXAV = 0.58478183E 08 KEXAV = 0.10273518E 01 KEXFL = 0.65653679E 08

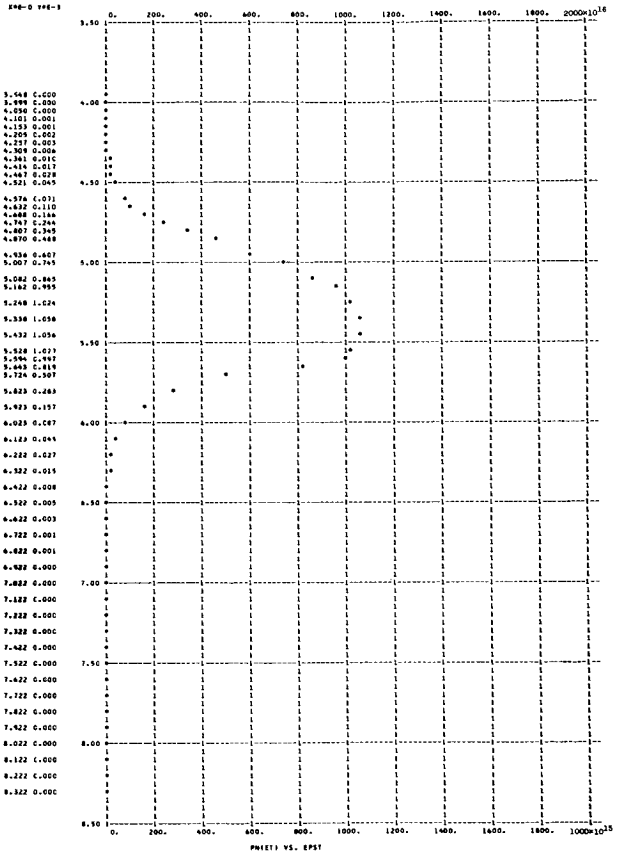
J = 0.196884E 09 KETAV= 0.126058E 01 KETFL= 0.781797E 08 TZERO = 0.975238E 04 TD = 0.223089E 04

Figure 3. - Continued.


X*E-0 Y*E-3
0. 250. 500. 750. 1000. 1250. 1500. 1750. 2000. 2250. 2500x10^5
0.050 0.775
0.150 0.119
0.250 0.187
0.350 0.286
0.450 0.426
0.550 0.613
0.650 0.848
0.750 1.121
0.850 1.407
0.950 1.676
1.050 1.523
1.150 2.300
1.250 2.184
1.350 2.196
1.418 2.159
1.468 1.791
1.550 1.124
1.650 0.635
1.750 0.357
1.850 0.201
1.950 0.112
2.050 0.063
2.150 0.035
2.250 0.020
2.350 0.011
2.450 0.006
2.550 0.003
2.650 0.002
2.750 0.001
2.850 0.001
2.950 0.000
3.050 0.000
3.150 0.000
3.250 0.000
3.350 0.000
3.450 0.000
3.550 0.000
3.650 0.000
3.750 0.000
3.850 0.000
3.950 0.000
4.050 0.000
0. 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50
0. 250. 500. 750. 1000. 1250. 1500. 1750. 2000. 2250. 2500x10^5
J(ER)/DELER VS. EPSLON


X*E-0 Y*E-3
0. 250. 500. 750. 1000. 1250. 1500. 1750. 2000. 2250. 2500x10^5
0.576 0.136
0.632 0.213
0.688 0.325
0.747 0.483
0.807 0.691
0.870 0.949
0.936 1.243
1.007 1.543
1.082 1.810
1.162 2.010
1.248 2.106
1.338 2.081
1.432 2.299
1.528 2.257
1.594 2.205
1.643 1.920
1.724 1.136
1.823 0.639
1.923 0.358
2.023 0.201
2.123 0.113
2.222 0.063
2.322 0.035
2.422 0.020
2.522 0.011
2.622 0.006
2.722 0.003
2.822 0.002
2.922 0.001
3.022 0.001
3.122 0.000
3.222 0.000
3.322 0.000
3.422 0.000
3.522 0.000
3.622 0.000
3.722 0.000
3.822 0.000
3.922 0.000
4.022 0.000
4.122 0.000
4.222 0.000
0. 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50
0. 250. 500. 750. 1000. 1250. 1500. 1750. 2000. 2250. 2500x10^5
J(ET)/DELET VS. EPST



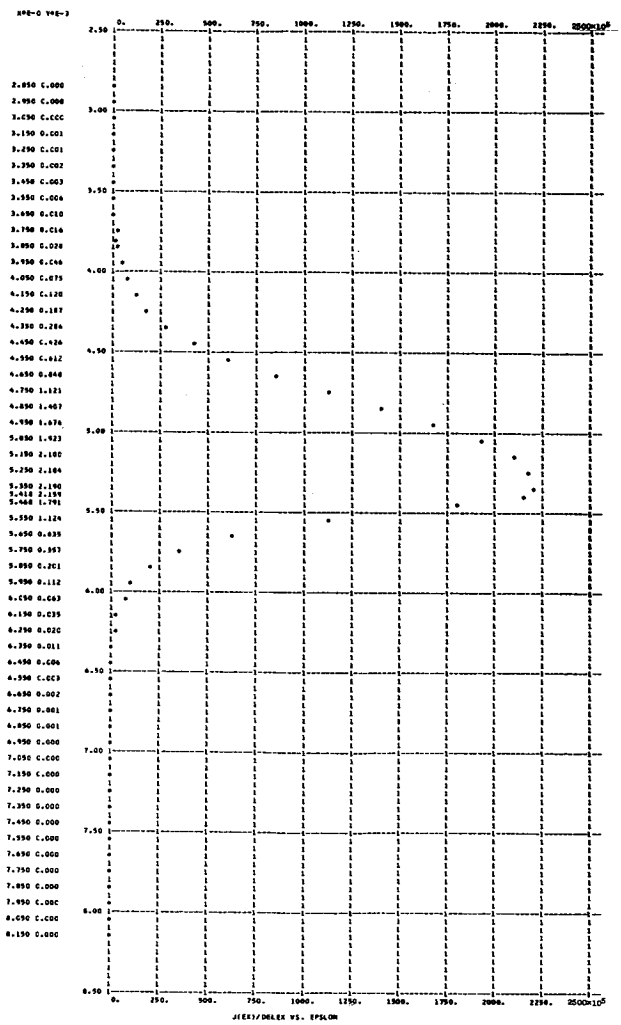


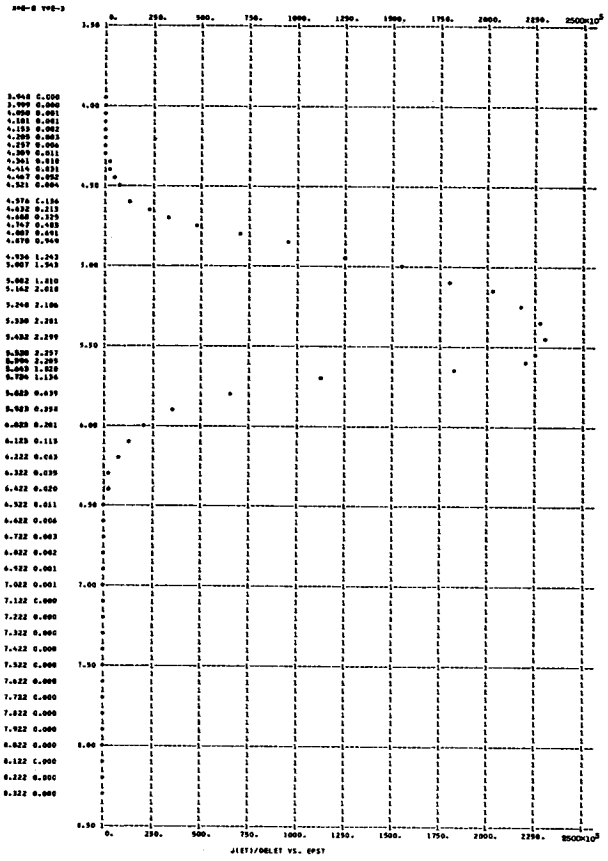
T = 0.20000000E 04 E = 0.31622784E 08 PHI = 2.00 AMU = 5.00 EVMAX = 5.4353

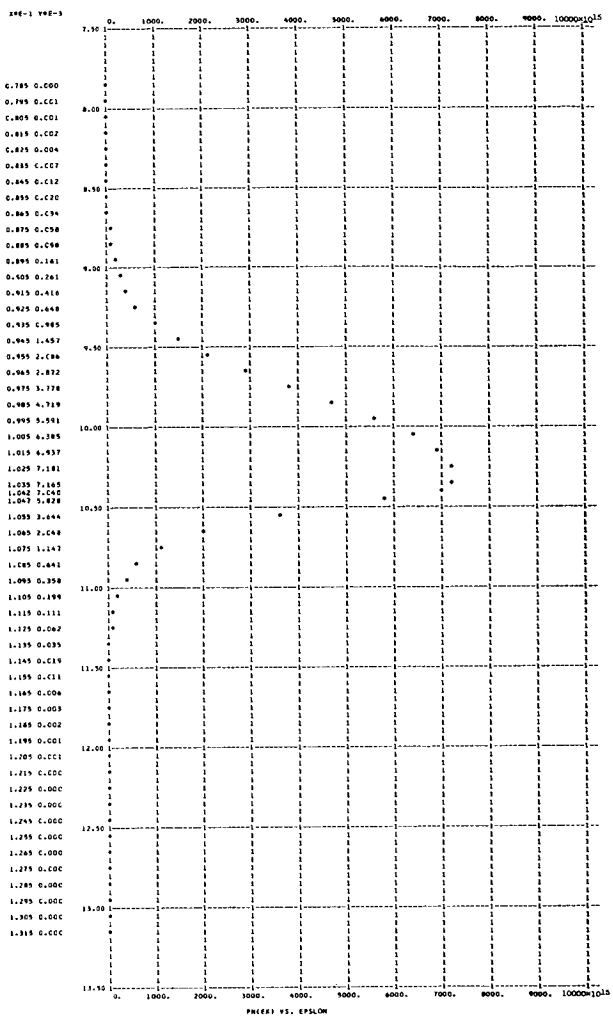
NEM = 0.50836446E 23 NEE = 0.92138174E 19 VXAV = 0.13387460E 09 KEXAV = 0.51026611E 01 KEXFL = 0.68505631E 09

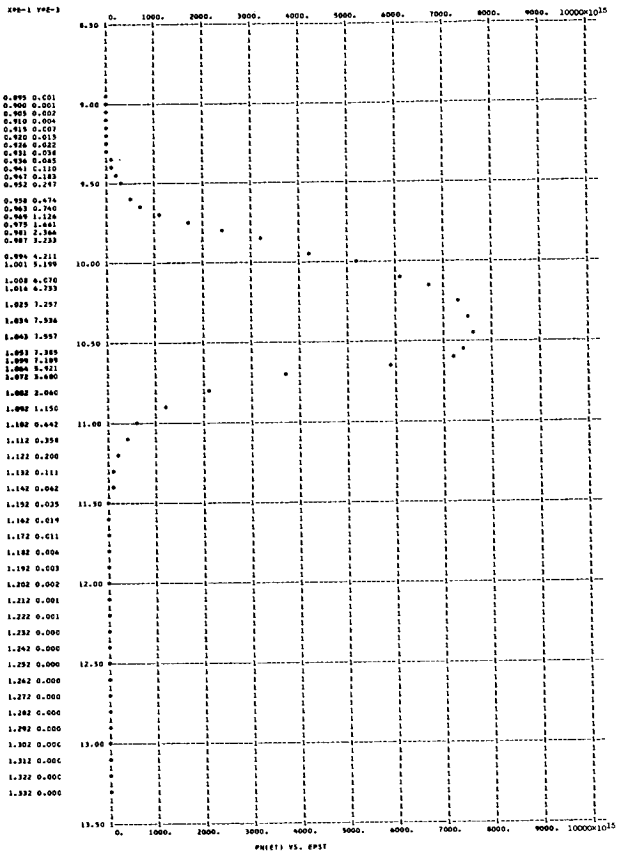
J = 0.197606E 09 KETAV= 0.532108E 01 KETFL= 0.713981E 09 TZERO = 0.411660E 05 TD = 0.174641E 04

Figure 3. - Continued.


J(EE)/DELEX VS. EPSLON


J(ET)/DELET VS. EPST



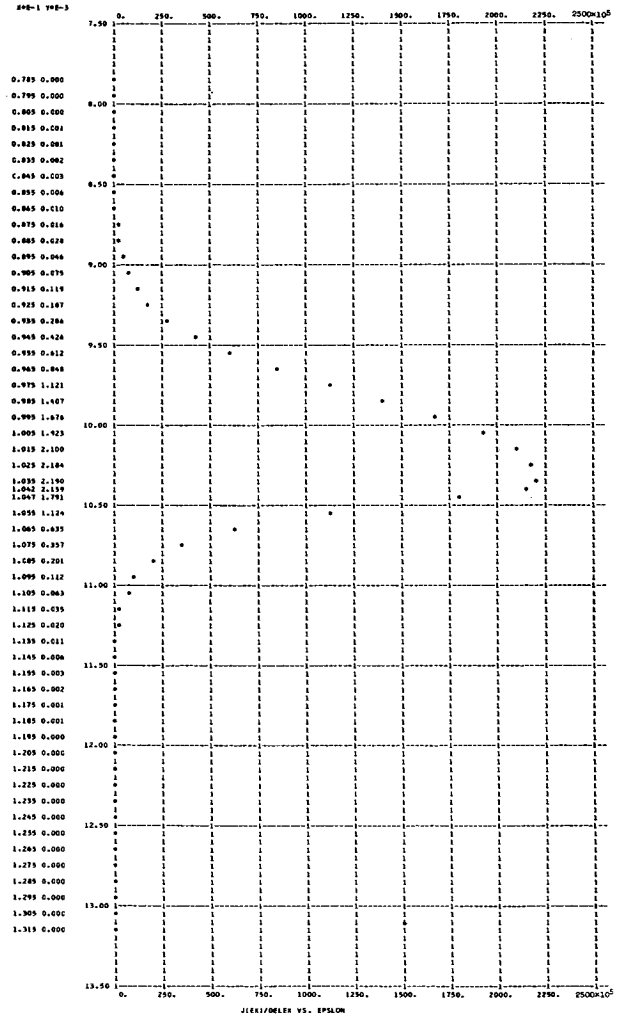


T = 0.20000000E 04 E = 0.31622784E 08 PHI = 2.00 AMU = 10.00 EVMAX = 10.4353

NEM = 0.14370953E 24 NEE = 0.65422324E 19 VXAV = 0.18854229E 09 KEXAV = 0.10109961E 02 KEXFL = 0.19075107E 10

J = 0.197605E 09 KETAV= 0.103272E 02 KETFL= 0.194825E 10 TZERO = 0.798951E 05 TD = 0.170826E 04

Figure 3. - Continued.


0. 250. 500. 750. 1000. 1250. 1500. 1750. 2000. 2250. 2500×10⁵
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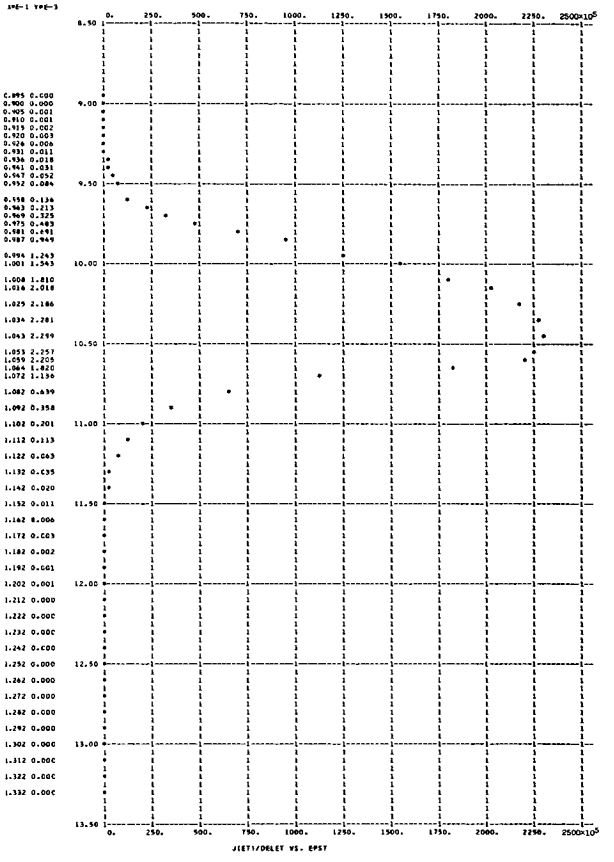
JIEKI/DELEK VS. EPSLON


0. 250. 500. 750. 1000. 1250. 1500. 1750. 2000. 2250. 2500×10⁵
8.50
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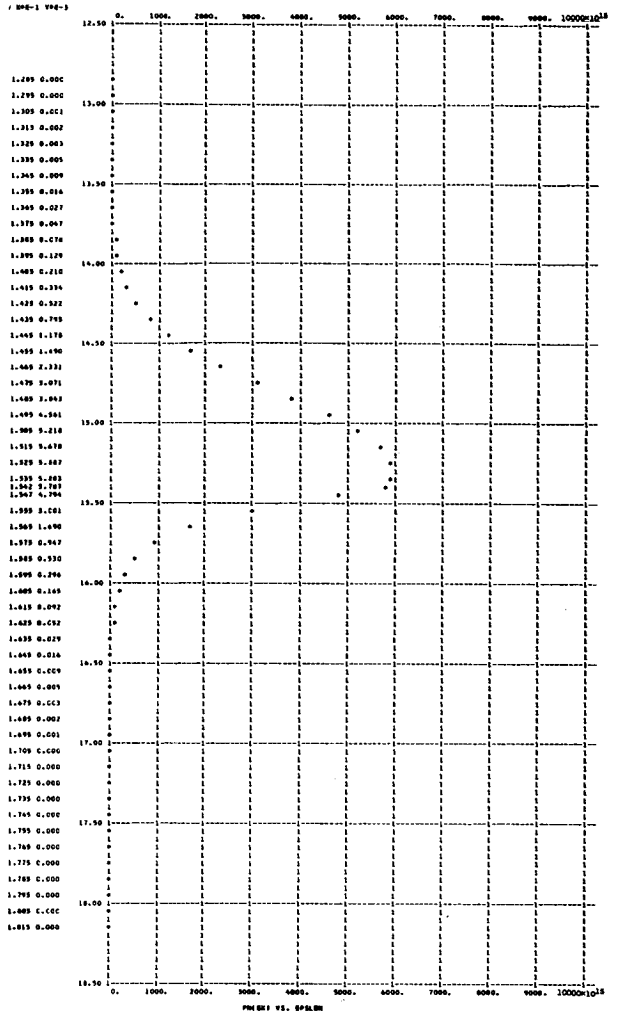
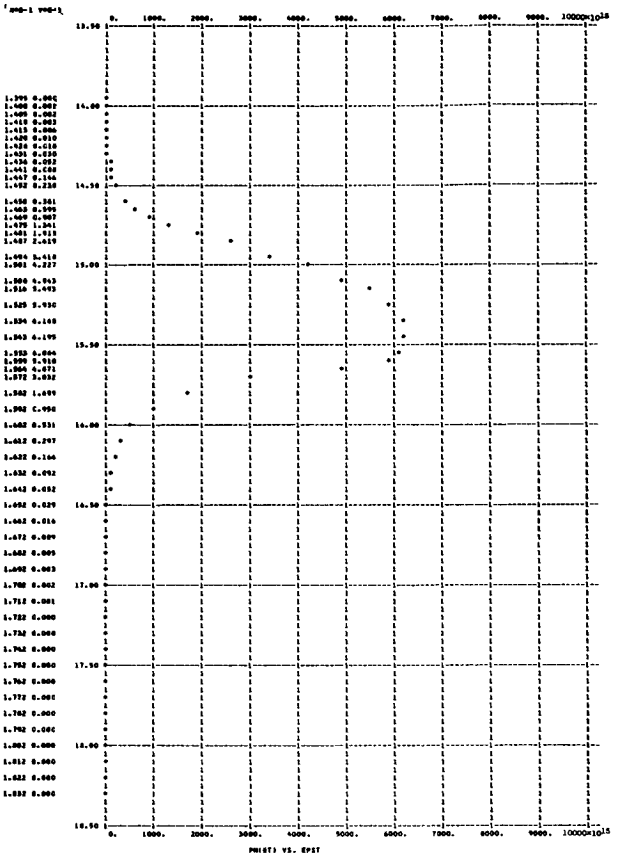
JIET1/DELET VS. EPST



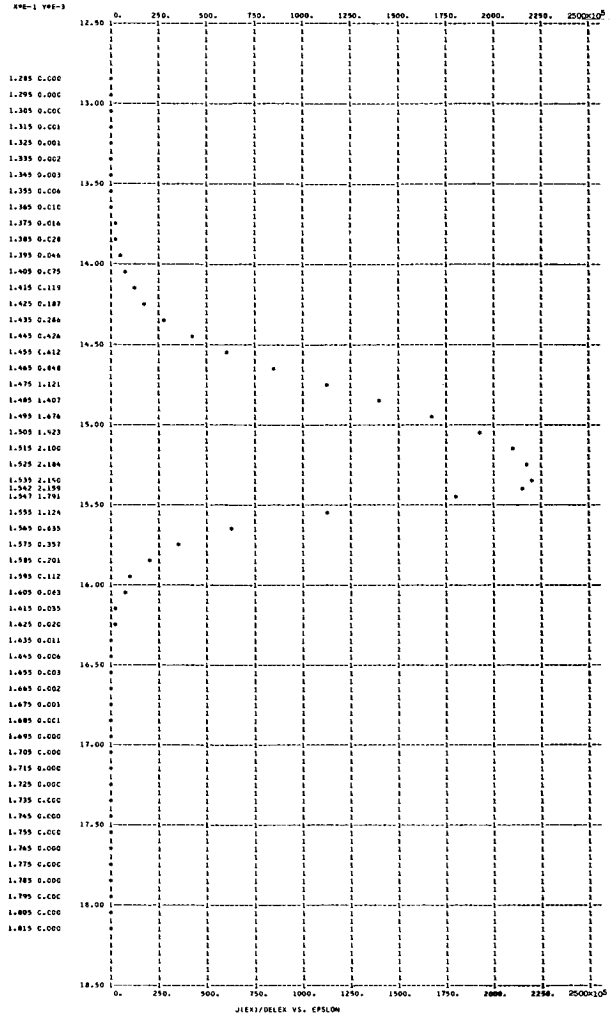


T = 0.20000000E 04 E = 0.31622784E 08 PHI = 2.00 AMU = 15.00 EVMAX = 15.4353

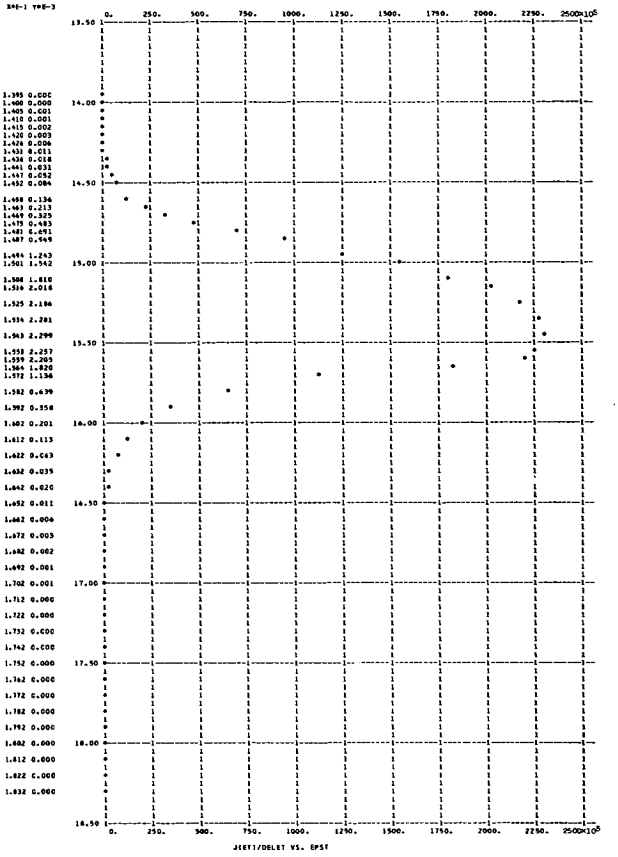
NEM = 0.26399449E 24 NEE = 0.53504483E 19 VXAV = 0.23053844E 09 KEXAV = 0.15112365E 02 KEXFL = 0.34850842E 10

J = 0.197604E 09 KETAV= 0.153292E 02 KETFL= 0.353489E 10 TZERO = 0.118593E 06 TD = 0.169588E 04

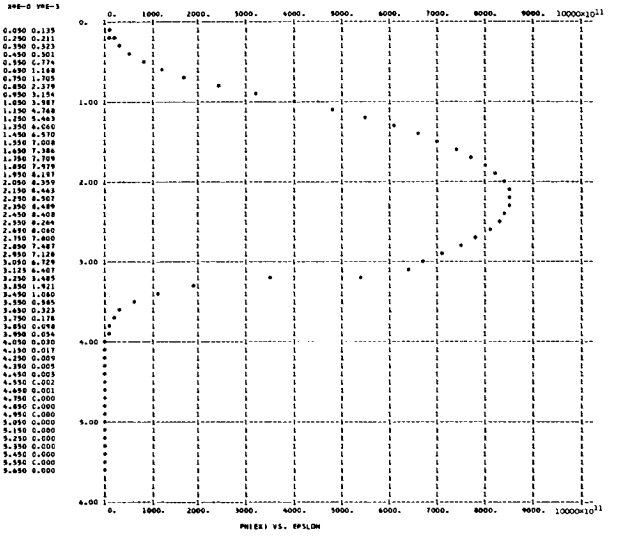
Figure 3. - Continued.

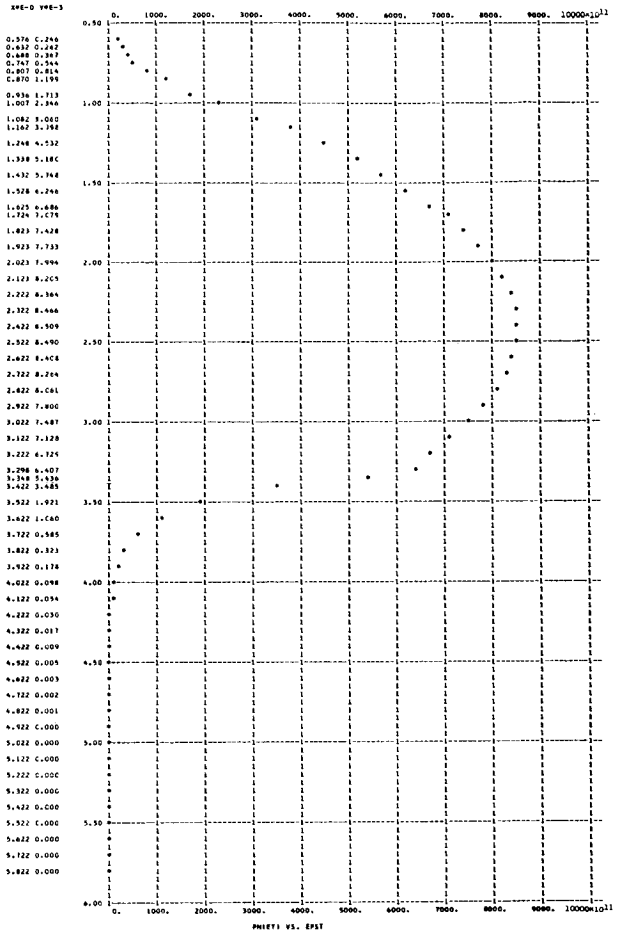


JIEXJ/DELEX VS. EPSLON



JIEYJ/DELEY VS. EPSY



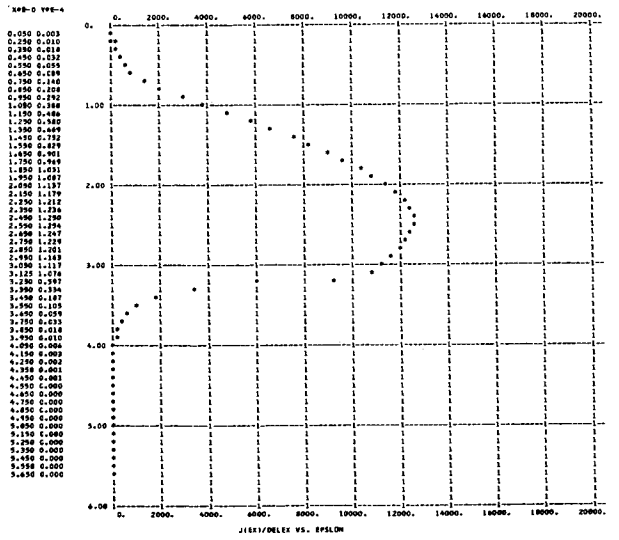


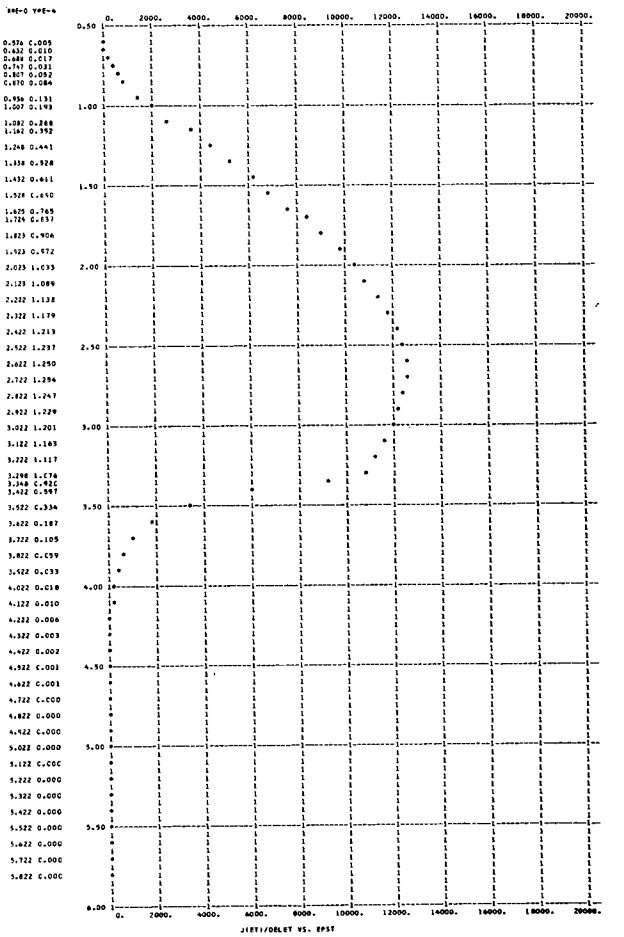
T = 0.2CCCOOOOE 04 E = 0.31622784E 08 PHI = 4.00 AMU = 1.00 EVMAX = 3.1508

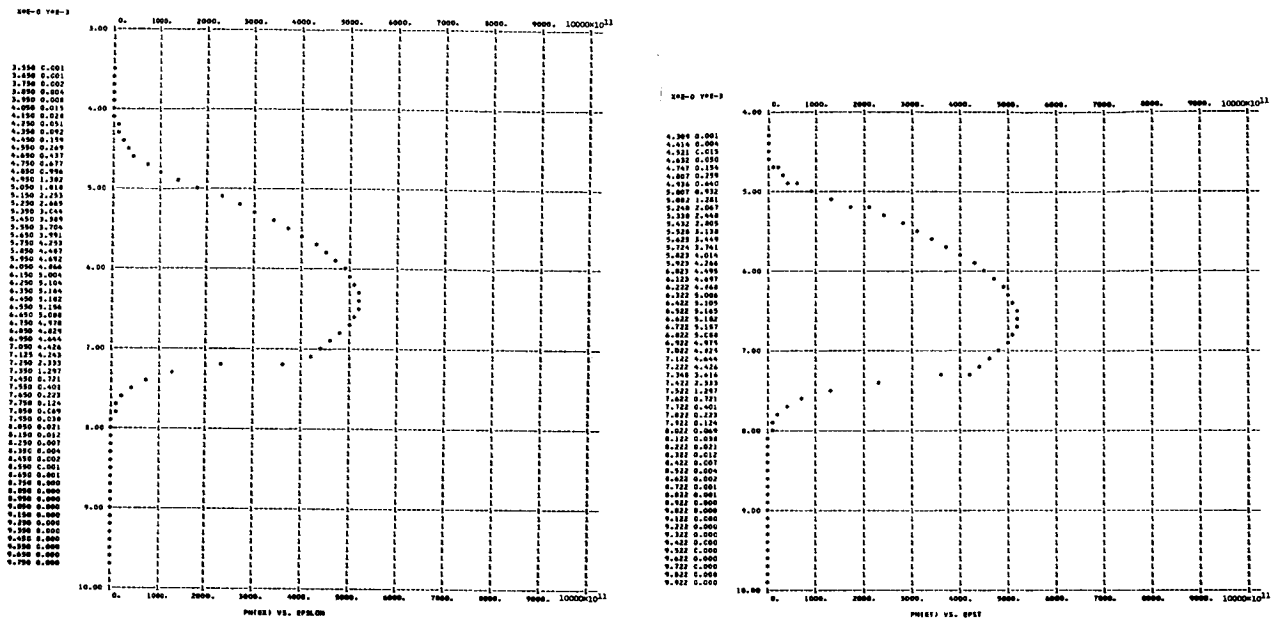
NEM = 0.46731979E 22 NEE = 0.17709757E 16 VXAV = 0.85051423E 08 KEXAV = 0.21236522E 01 KEXFL = 0.19133518E 09

J = 0.241300E 05 KETAV= 0.230337E 01 KETFL= 0.206355E 09 TZERO = 0.178198E 05 TD = 0.190946E 04

Figure 3. - Continued.


J(ER)/DELER VS. EPSLON


J(ET)/DELET VS. EPST

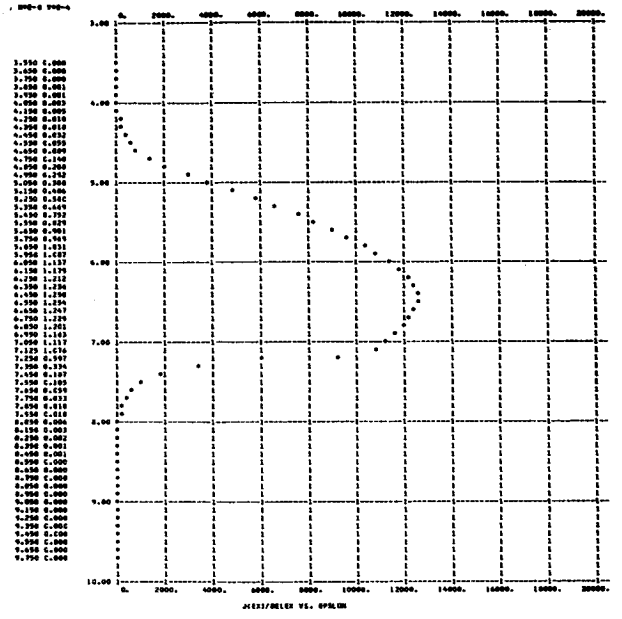


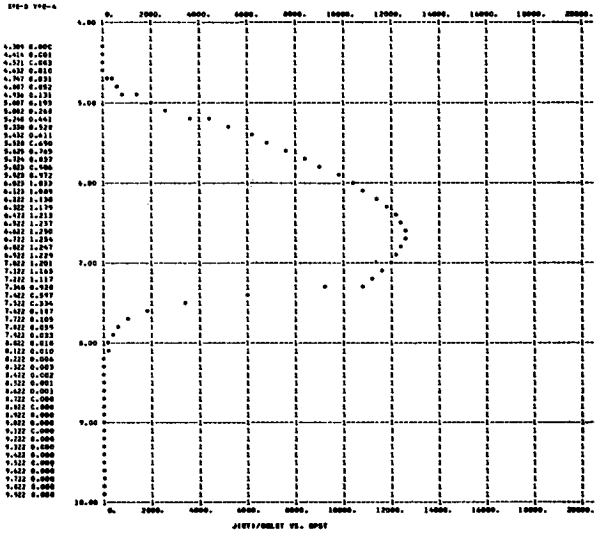
T = 0.2C000000E 04 E = 0.31622784E 08 PHI = 4.00 AMU = 5.00 EVMAX = 7.1508

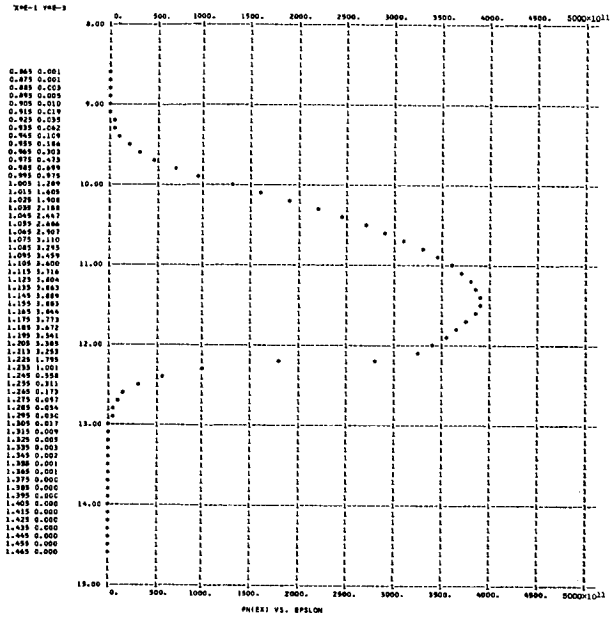
NEM = 0.50836430E 23 NEE = 0.10205042E 16 VXAV = 0.147594846 09 KEXAV = 0.62121315E 01 KEXFL = 0.92239645E 09

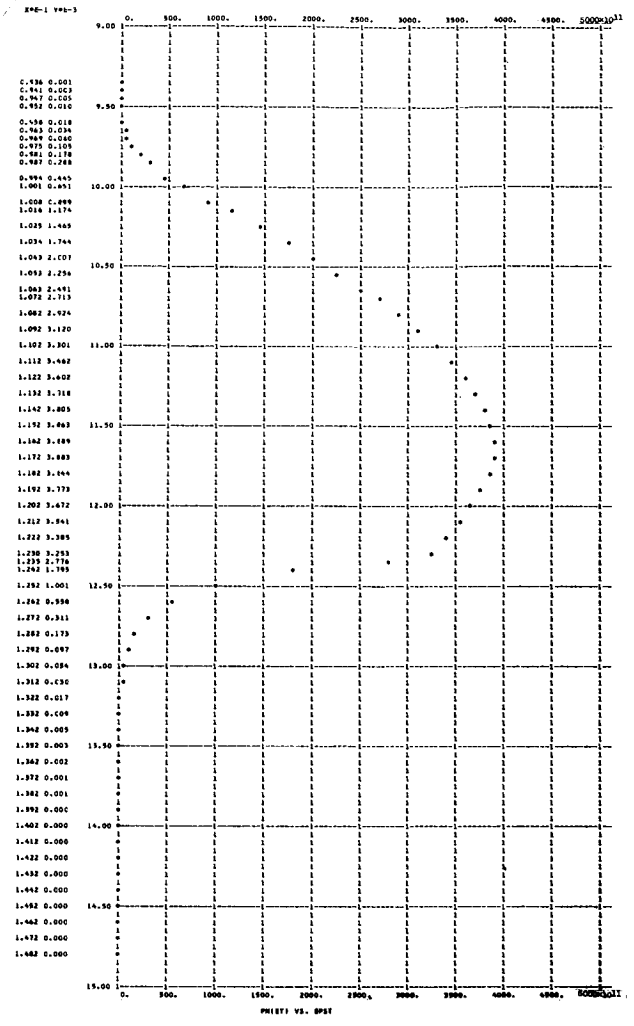
J = 0.241295E 05 KETAV= 0.638933E 01 KETFL= 0.948466E 09 TZERO = 0.494304E 05 TD = 0.151692E 04

Figure 3. - Continued.







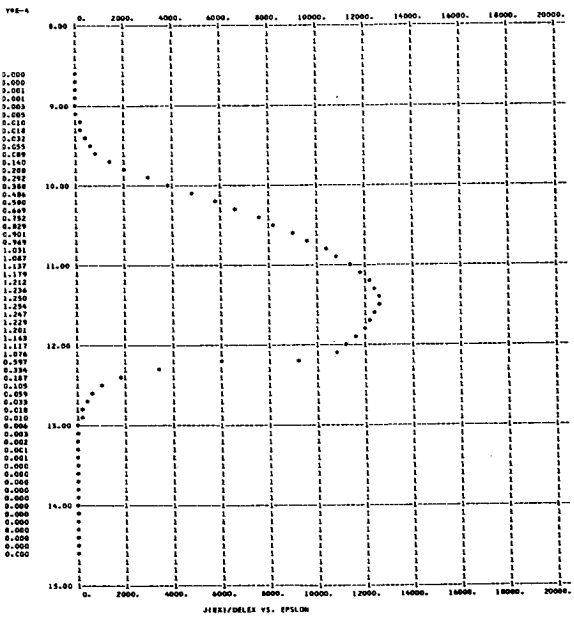


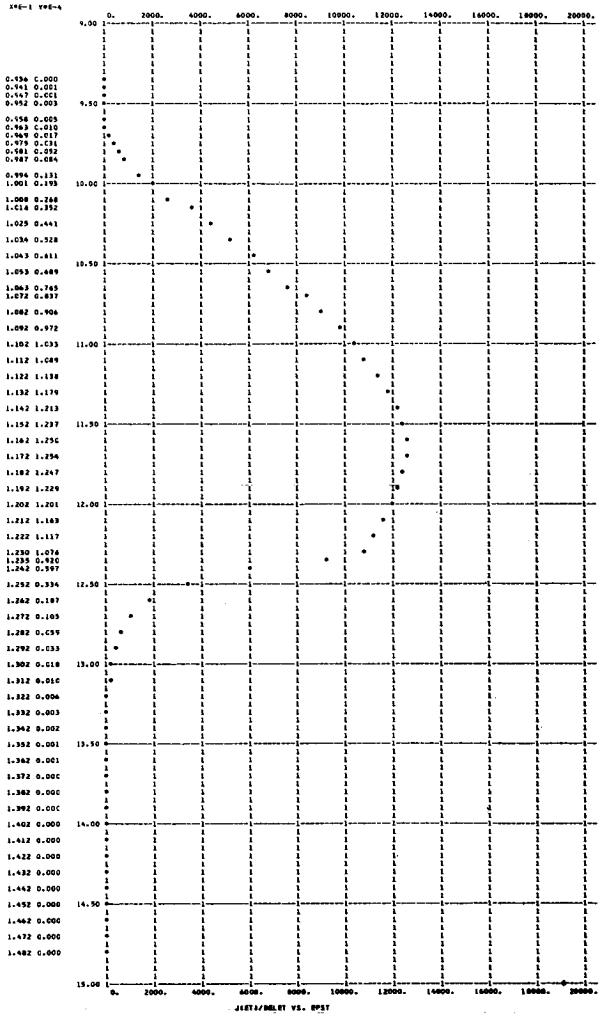
T = 0.20000000E 04 E = 0.31622784E 08 PHI = 4.00 AMU = 10.00 EVMAX = 12.1508

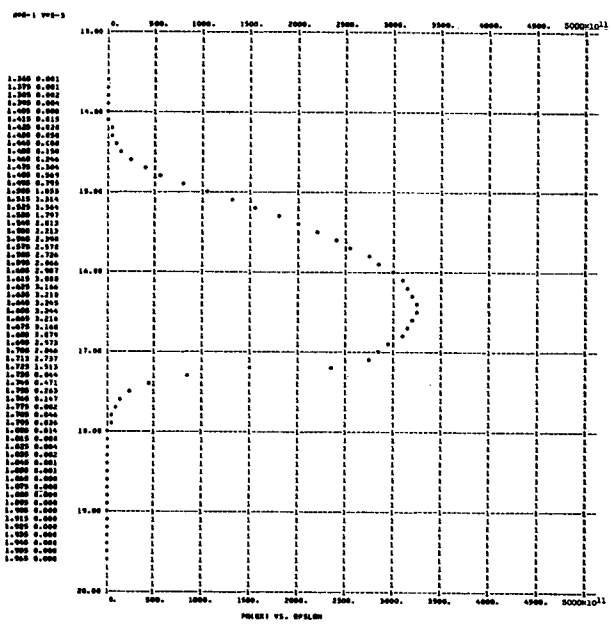
NEM = 0.14370953E 24 NEE = 0.75822160E 15 VXAV = 0.19864933E 09 KEXAV = 0.11229151E 02 KEXFL = 0.22347090E 10

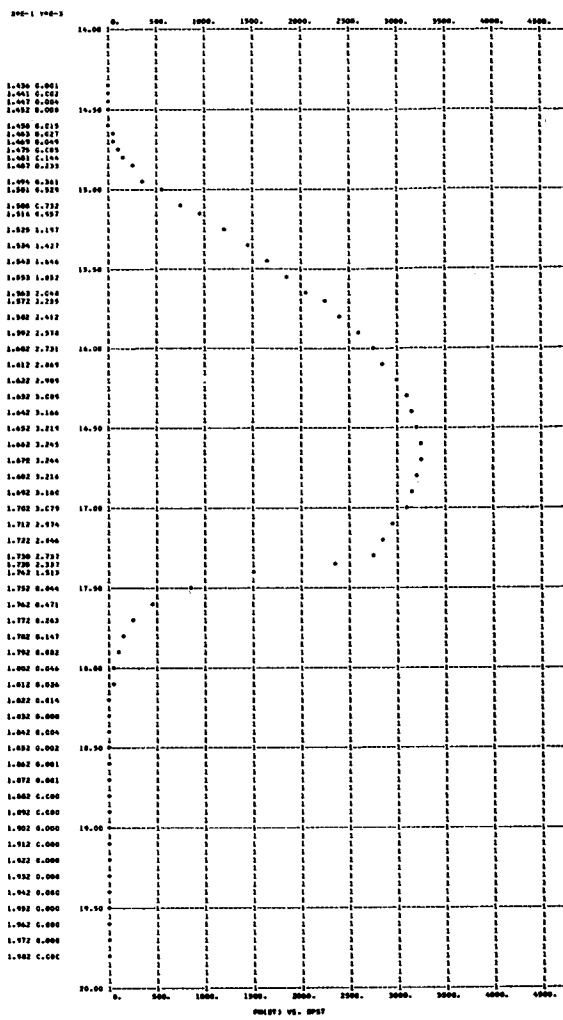
J = 0.241294E 05 KETAV= 0.114061E 02 KETFL= 0.226980E 10 TZERO = 0.882420E 05 TD = 0.144788E 04

Figure 3. - Continued.


J(EXE)/DELEX VS. EPSLON


J(ETA)/DELET VS. EPST



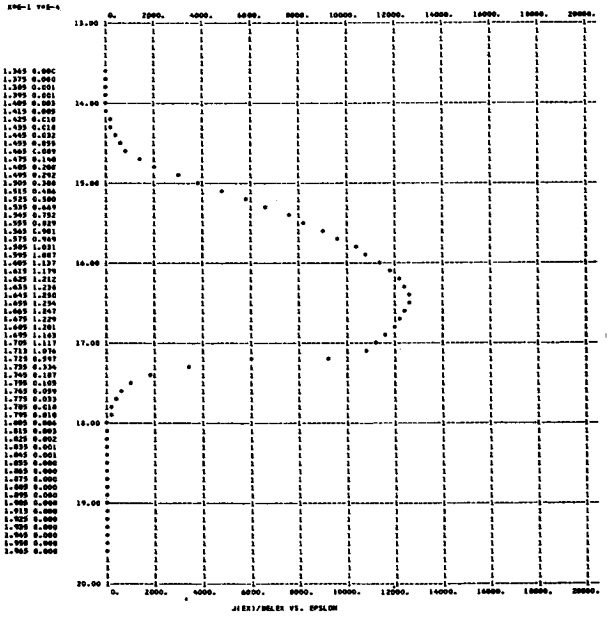


T = 0.20000000E 04 E = 0.31622784E 08 PHI = 4.00 AMU = 15.00 EVMAX = 17.1508

NEM = 0.26399449E 24 NEE = 0.63042291E 15 VXAV = 0.23891887E 09 KEXAV = 0.16235502E 02 KEXFL = 0.38823169E

J = 0.241293E C5 KETAV= 0.164123E 02 KETFL= 0.392452E 10 TZERO = 0.126972E 06 TD = 0.142234E 04

Figure 3. - Continued.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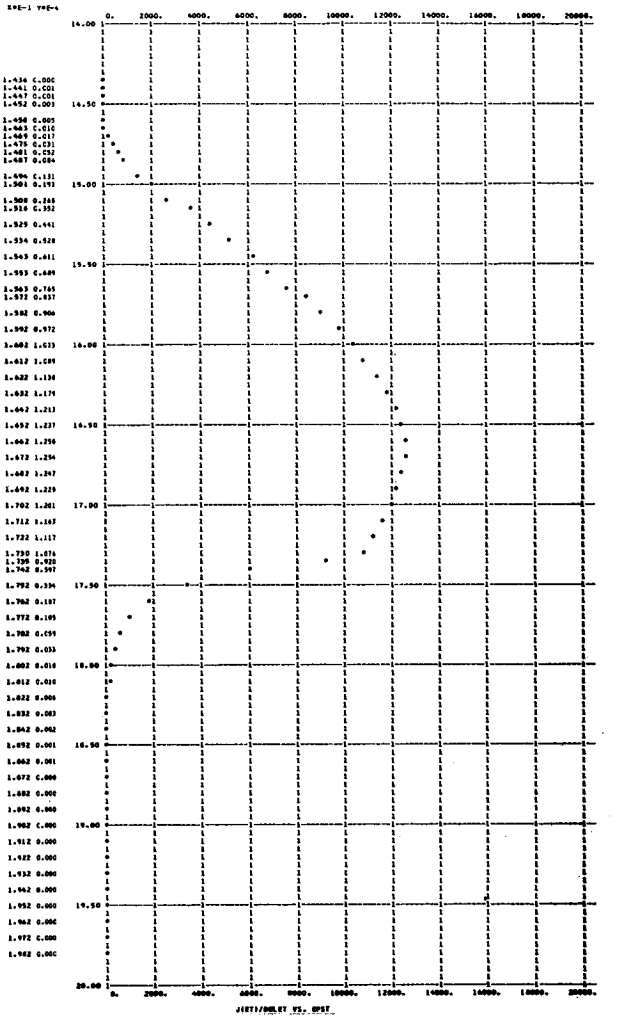
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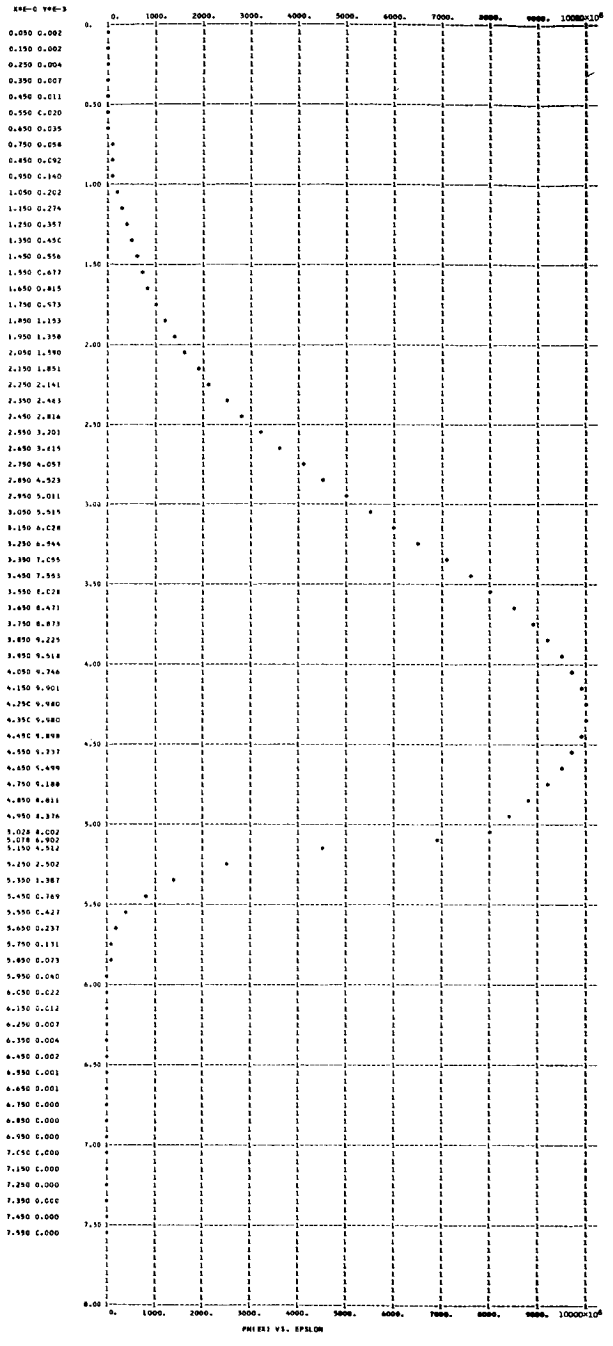
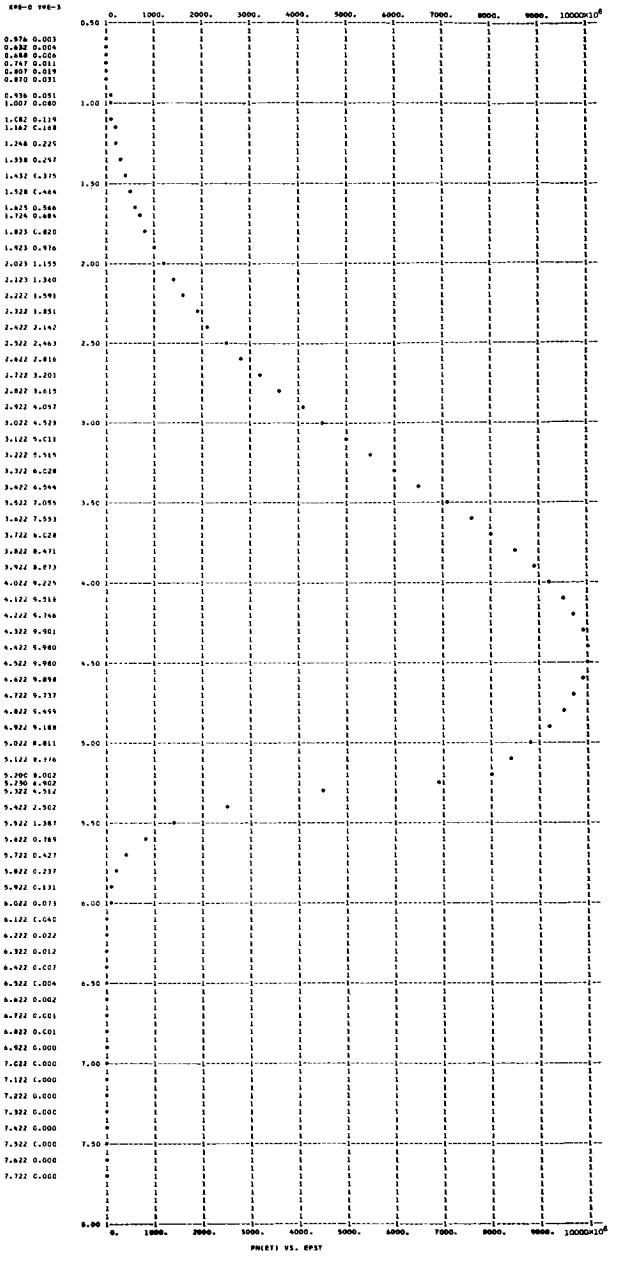


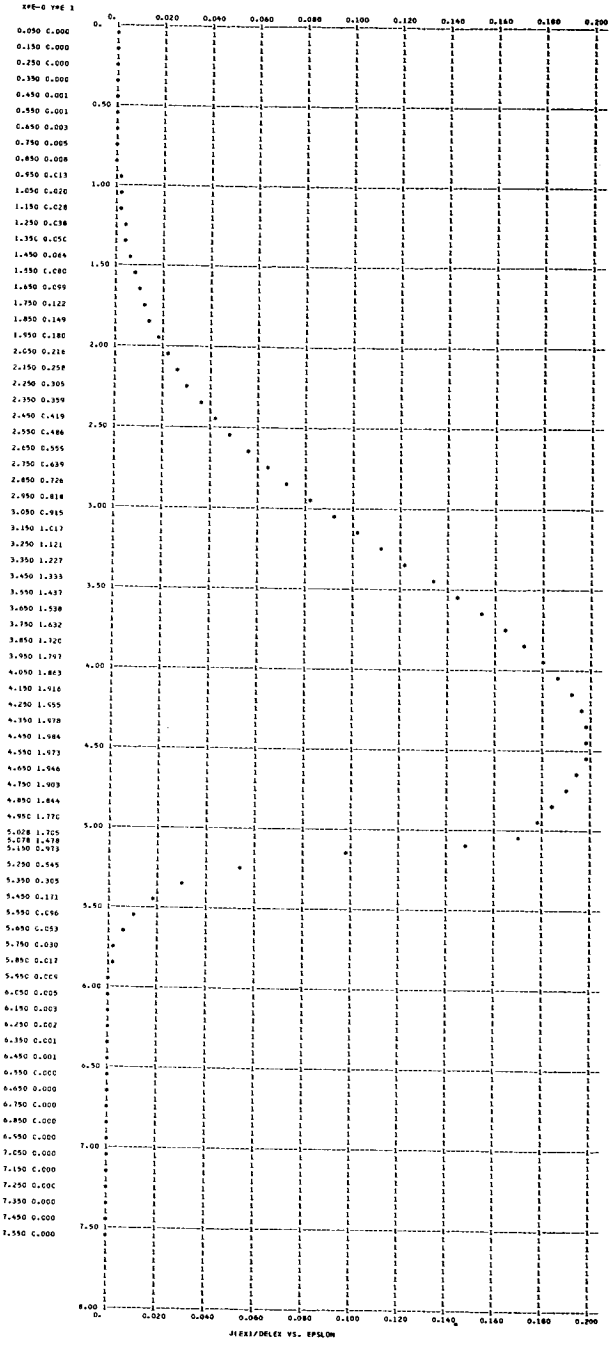


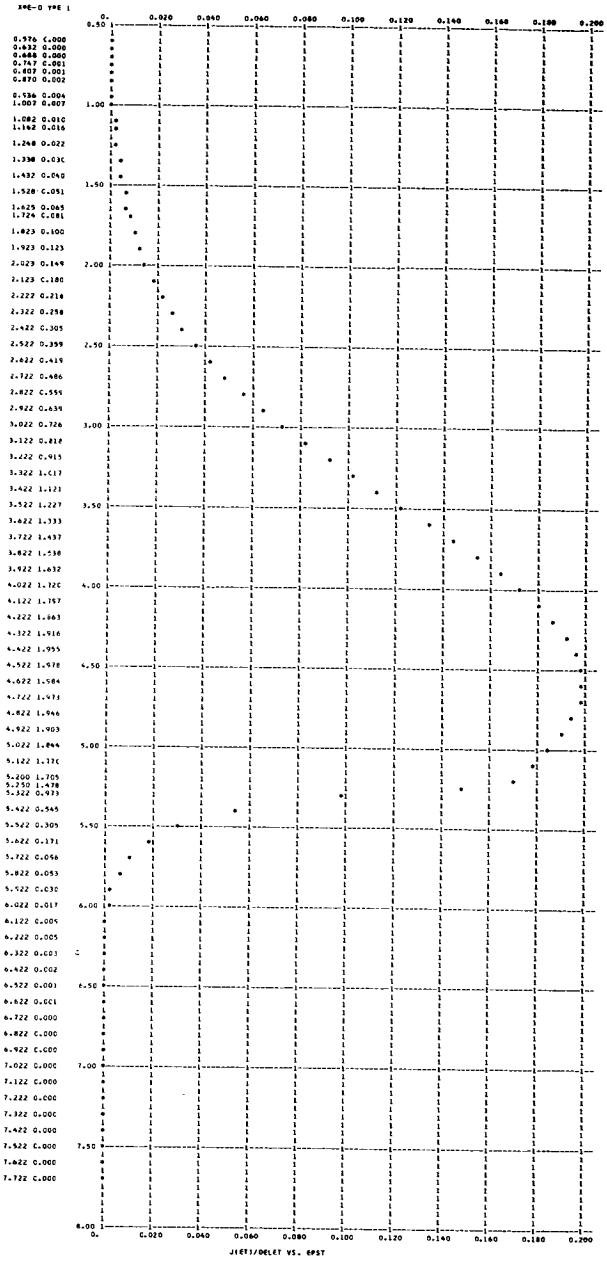
T = 0.2C000000E 04 E = 0.31622784E 08 PHI = 6.00 AMU = 1.00 EVMAX = 5.0559

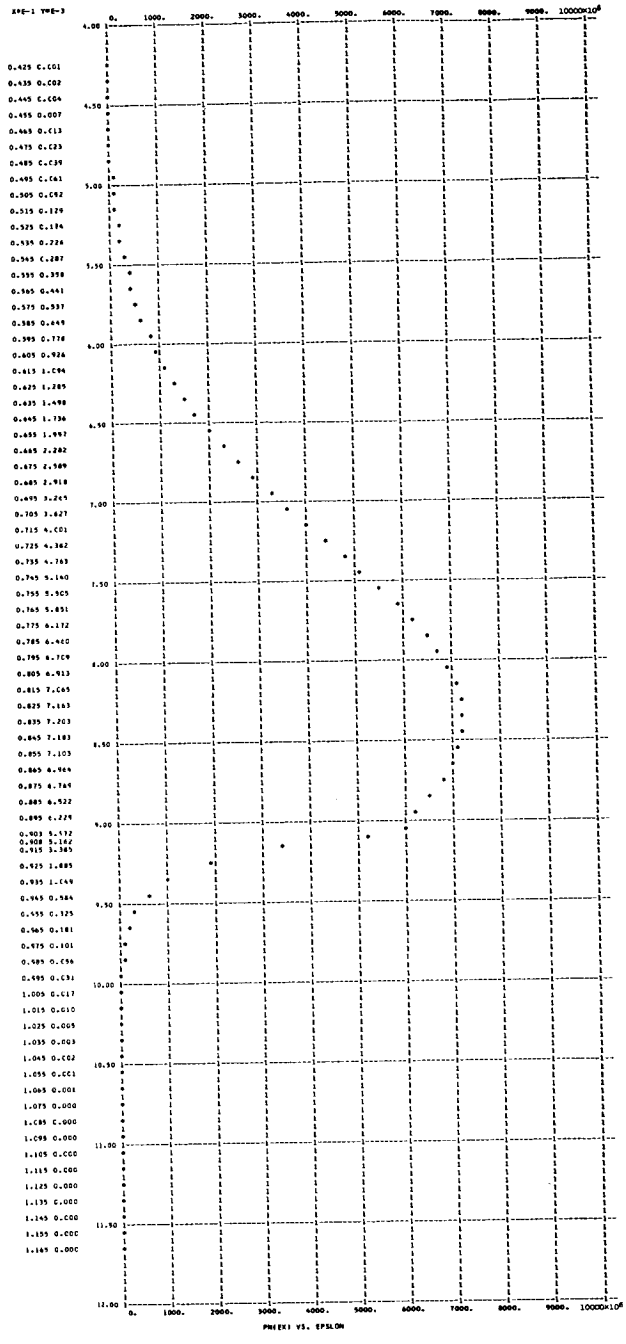
NEM = 0.46731979E 22 NEE = 0.22803057E 11 VXAV = 0.11587384E 09 KEXAV = 0.38748334E 01 KEXFL = 0.46153569E 09

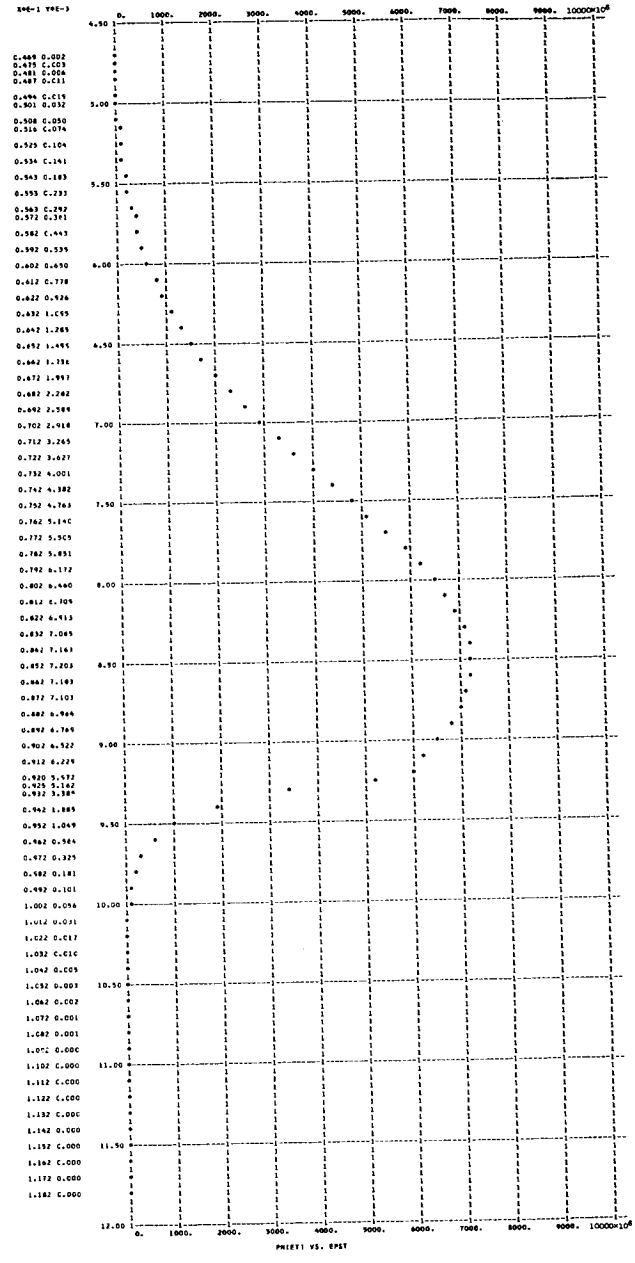
J = 0.42329 3E-00 KETAV= 0.404739E 01 KETFL= 0.481518E 09 TZERO = 0.313123E 05 TD = 0.178070E 04

Figure 3. - Continued.


JIER1/DELER VS. EPSLON


JIET1/DELET VS. EPST



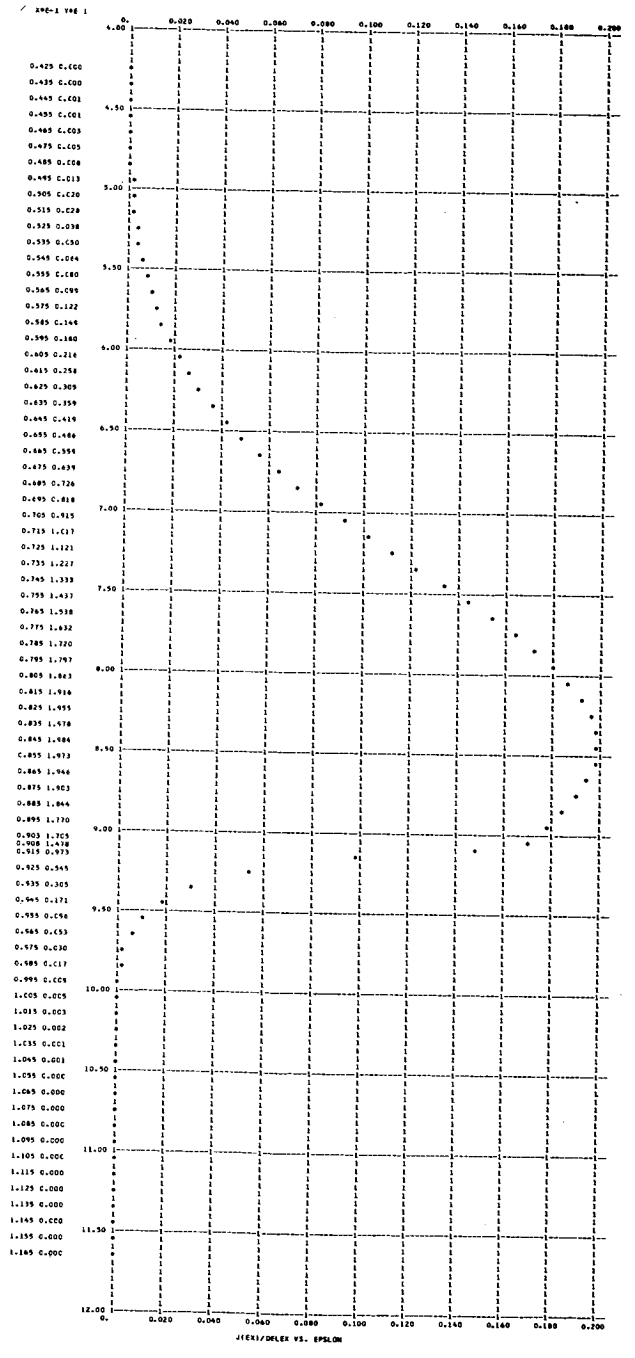


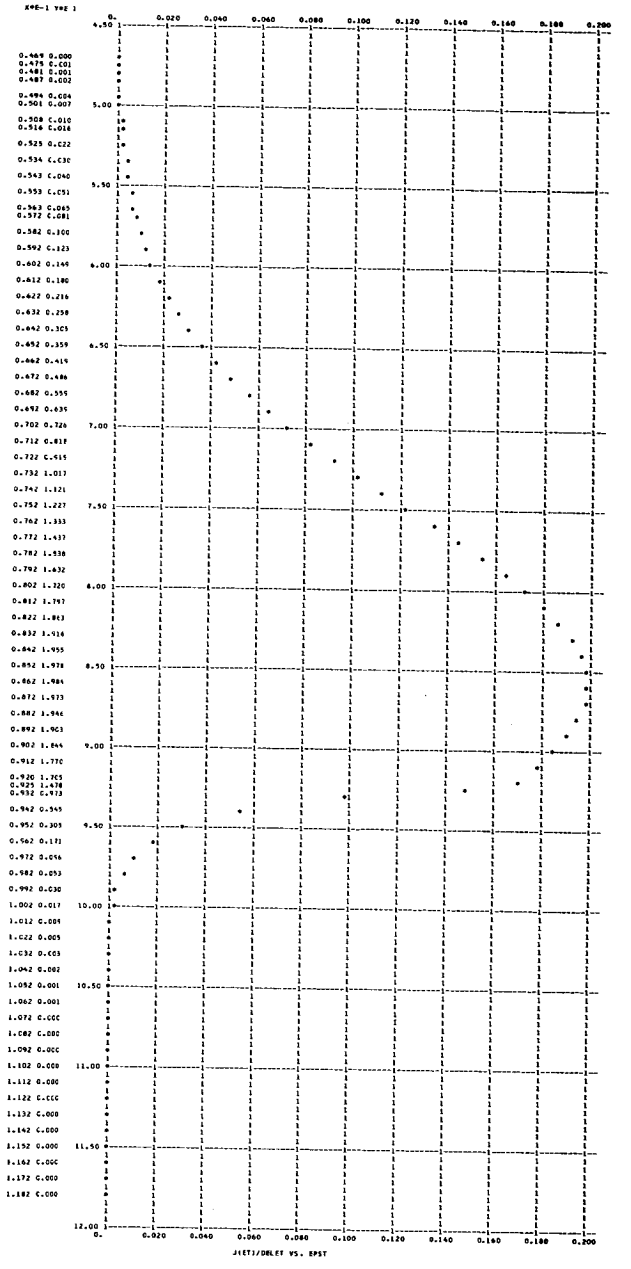
T = 0.20000000E 04 E = 0.31622784E 08 PHI = 6.00 AMU = 5.00 EVMAX = 9.0559

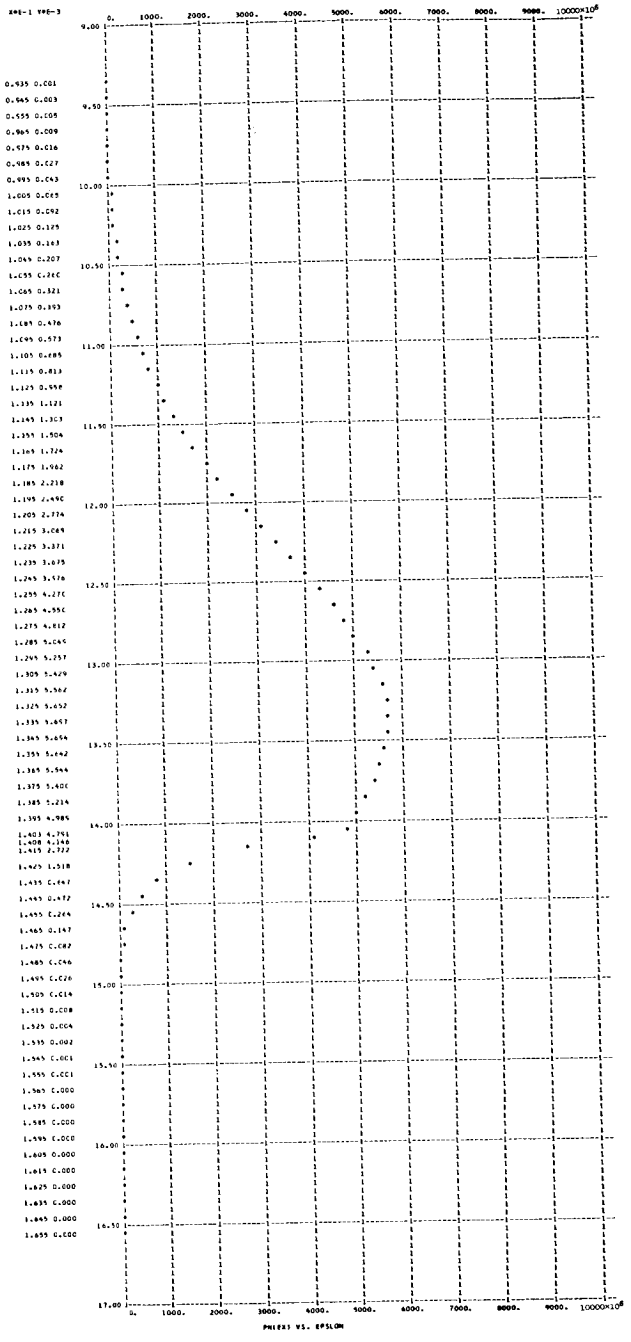
NEM = 0.50836430E 23 NEE = 0.15838761E 11 VXAV = 0.16682063E 09 KEXAV = 0.79359139E 01 KEXFL = 0.13317454E 10

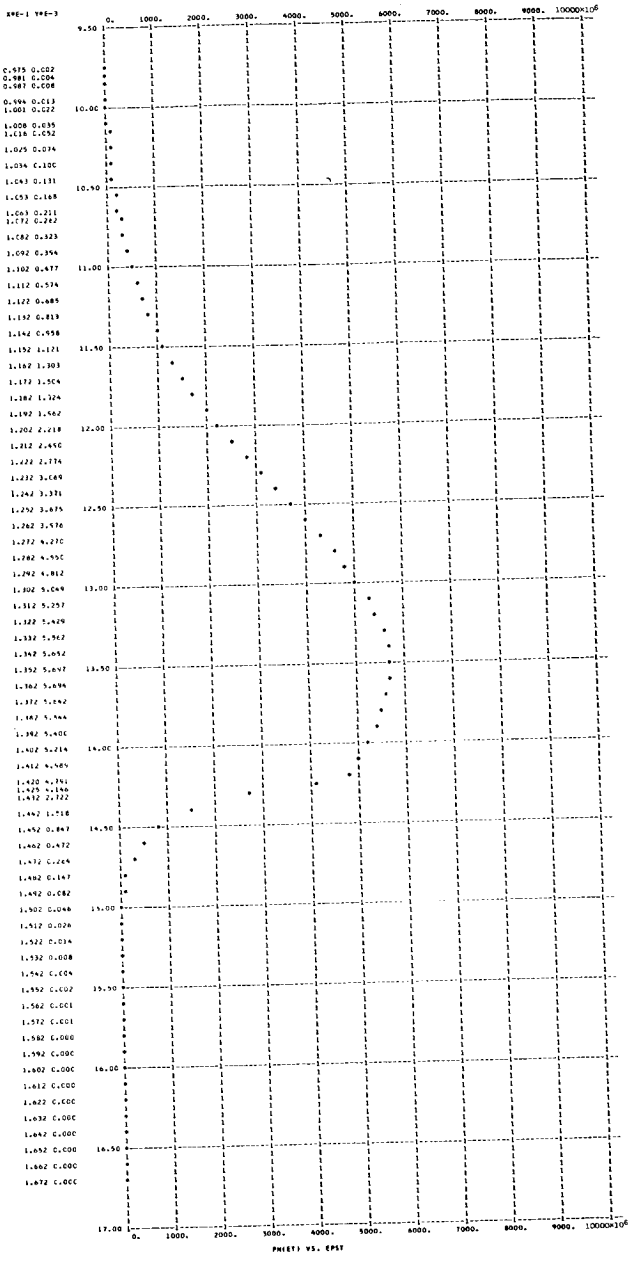
J = 0.423286E-00 KETAV= 0.810839E 01 KETFL= 0.136051E 10 TZERO = 0.627298E 05 TD = 0.152075E 04

Figure 3. - Continued.


J(EX)/DELEX VS. EPSLON


J(ET)/DELET VS. EPST



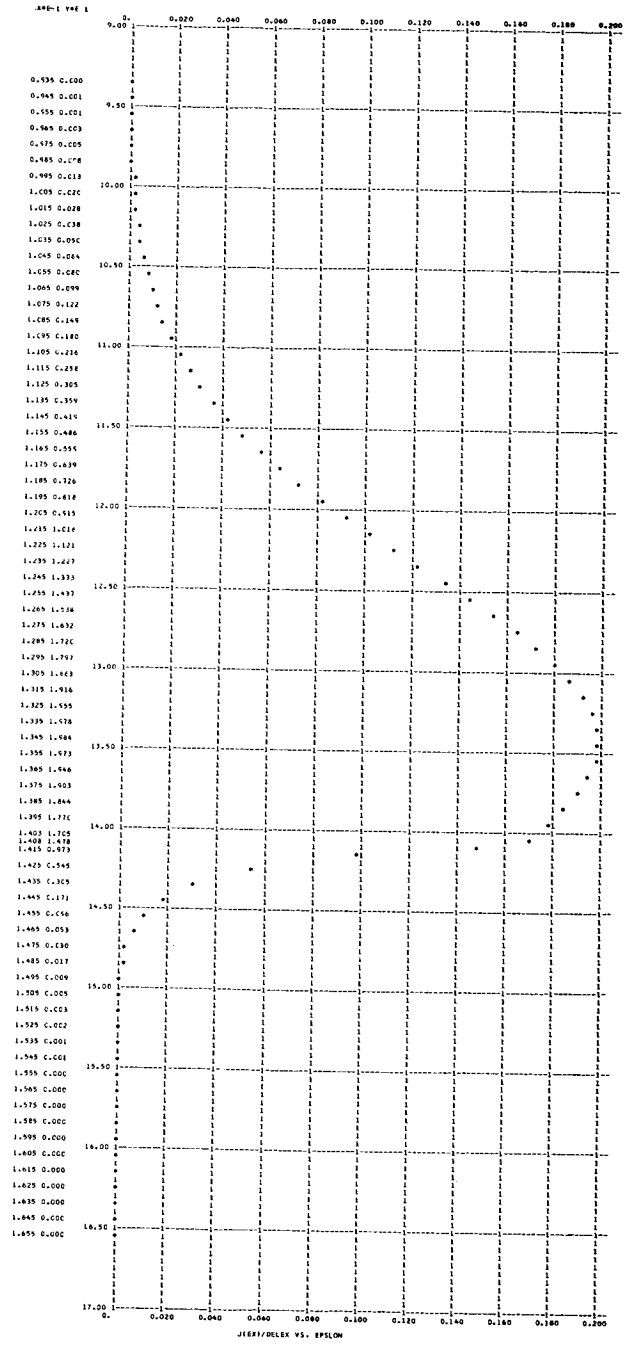


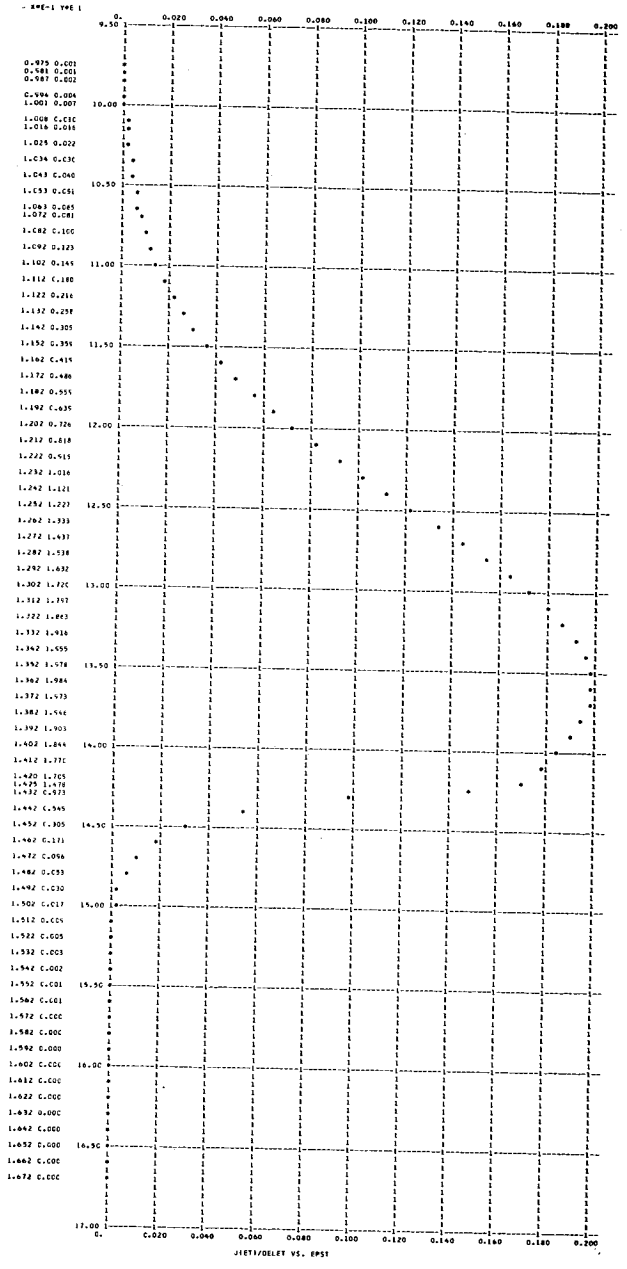
T = 0.20000000E 04 E = 0.31622784E 08 PHI = 6.00 AMU = 10.00 EVMAX = 14.0559

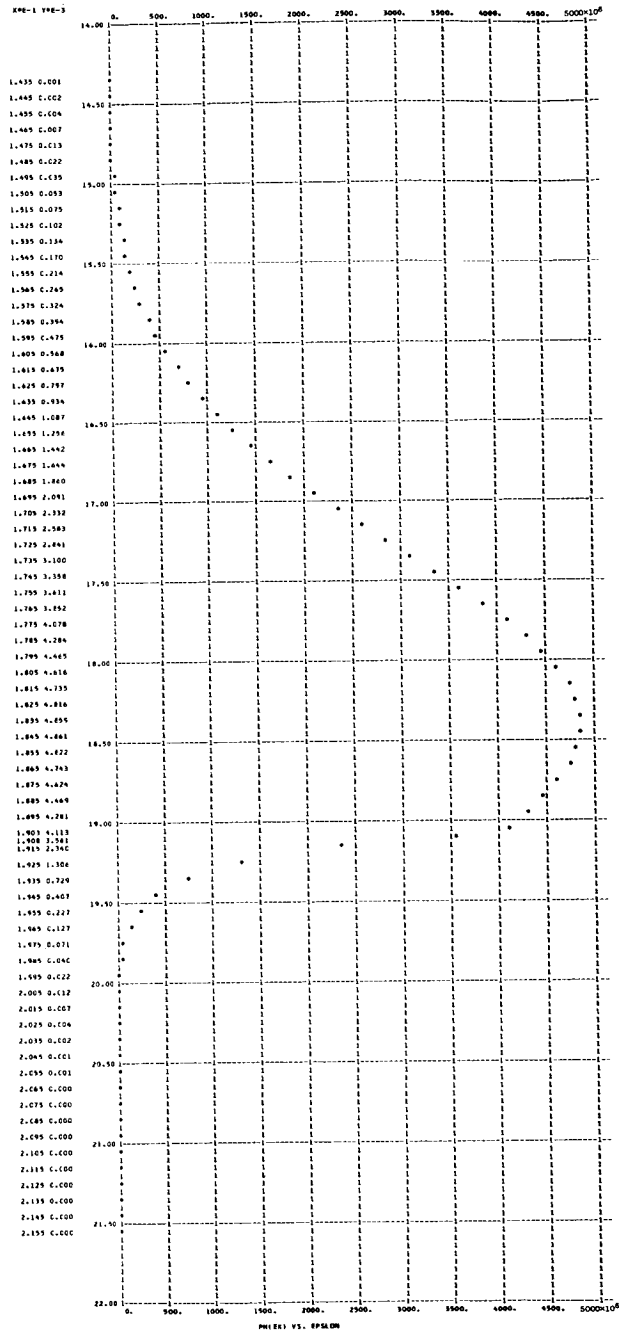
NEM = 0.14370953E 24 NEE = 0.12384481E 11 VXAV = 0.21334944E 09 KEXAV = 0.12954984E 02 KEXFL = 0.27699371E 10

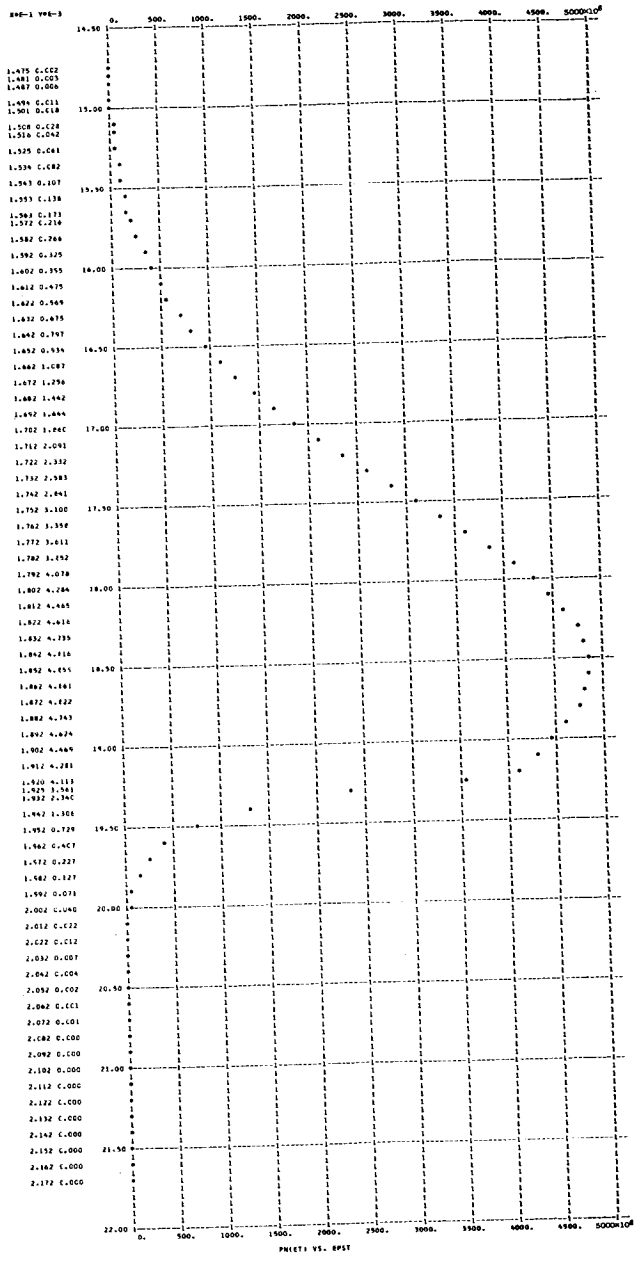
J = 0.423284E-00 KETAV= 0.131274E 02 KETFL= 0.280673E 10 TZERO = 0.101559E 06 TD = 0.144427E 04

Figure 3. - Continued.


JIEX)/DELEX VS. EPSLON


JIET)/DELET VS. EPST



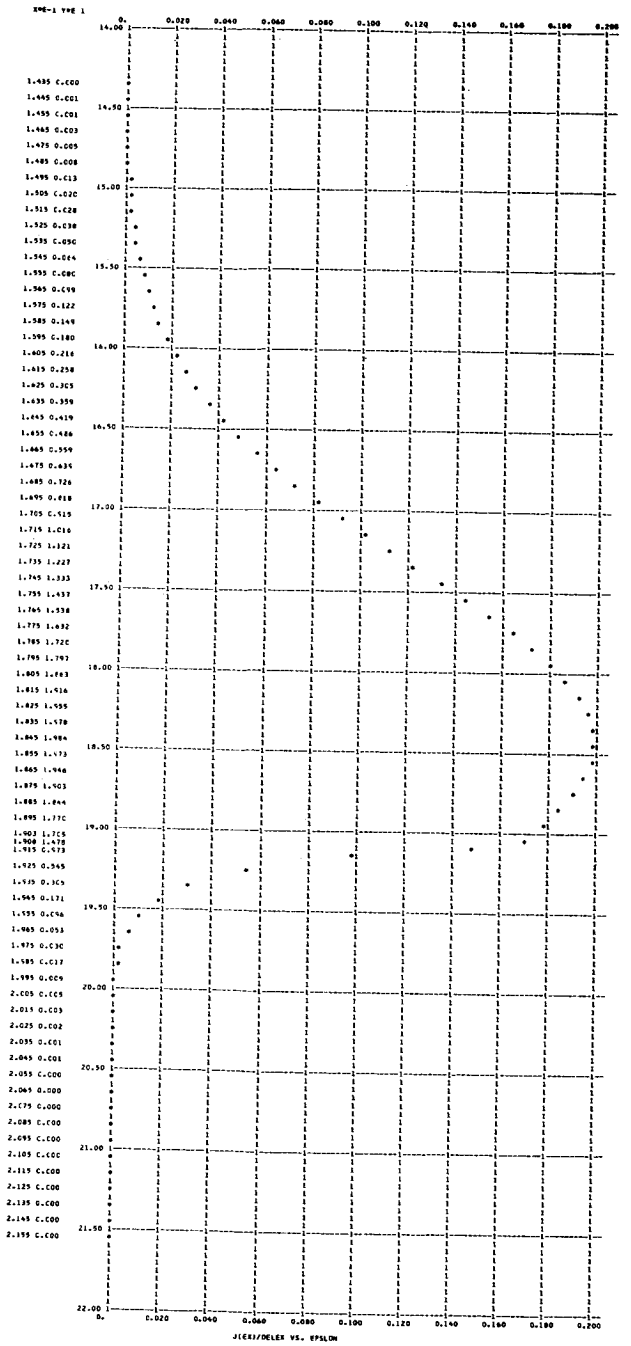


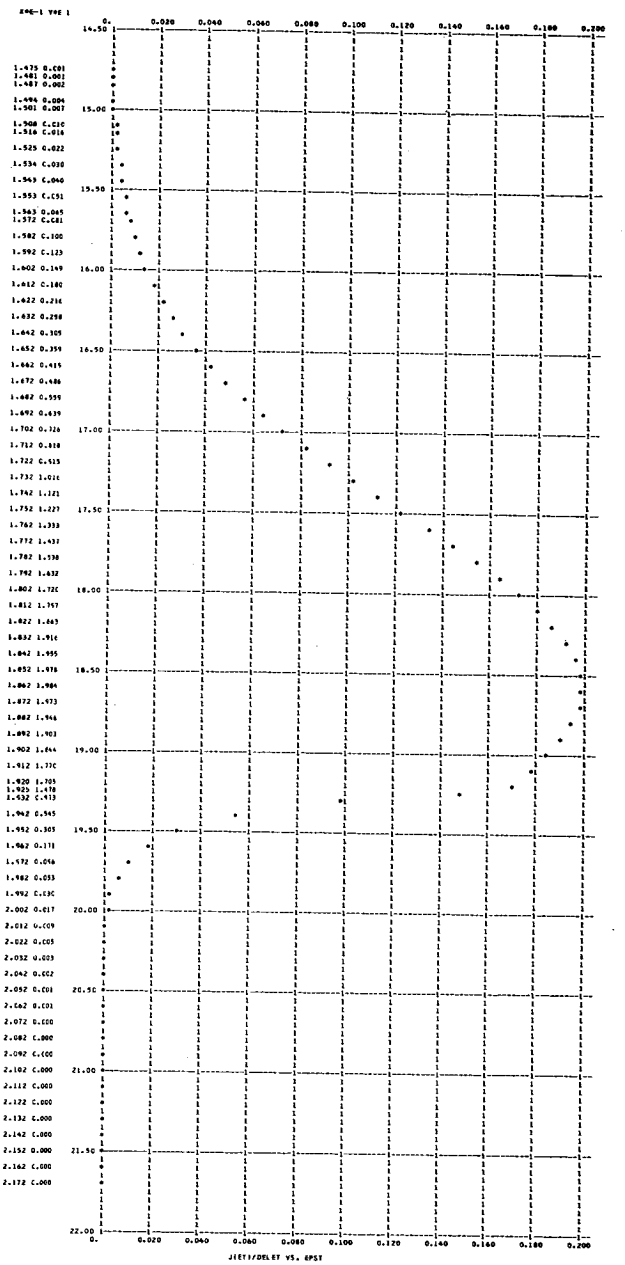
T = 0.200000C0E 04 E = 0.31622784E 08 PHI = 6.00 AMU = 15.00 EVMAX = 19.0559

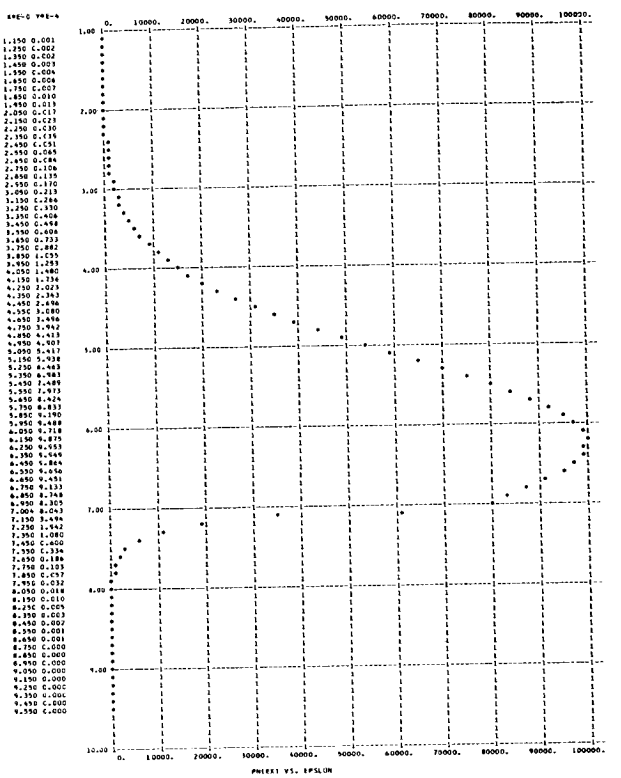
NEM = 0.26399449E 24 NEE = 0.10514516E 11 VXAV = 0.25129233E 09 KEXAV = 0.17963037E 02 KEXFL = 0.45190147E 10

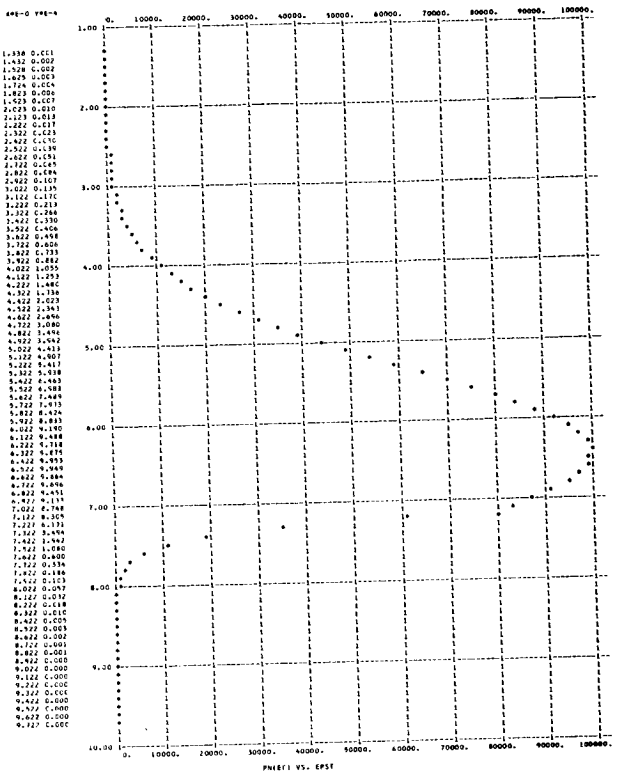
J = 0.423283E-C0 KETAV= 0.181355E 02 KETFL= 0.456235E 10 TZERO = 0.140303E 06 TD = 0.141241E 04

Figure 3. - Continued.


JCE3/DELEX VS. EPSLON


JCET/DELET VS. EPST



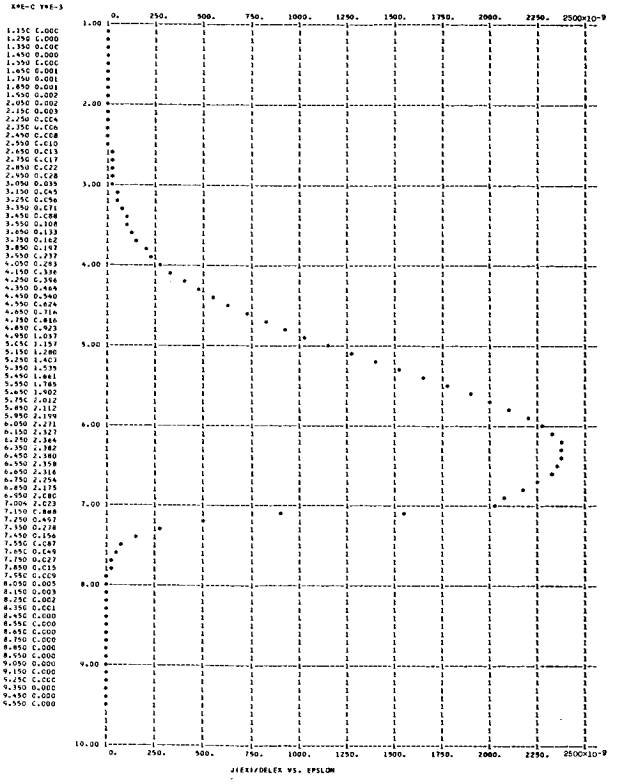


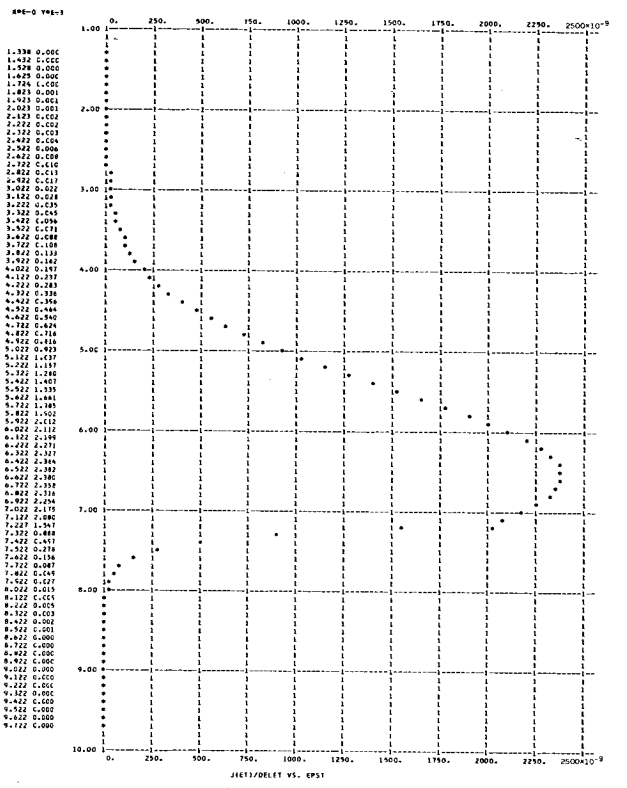
T = 0.2C0000C0E 04 E = 0.31622784E 08 PHI = 8.00 AMU = 1.00 EVMAX = 7.0085

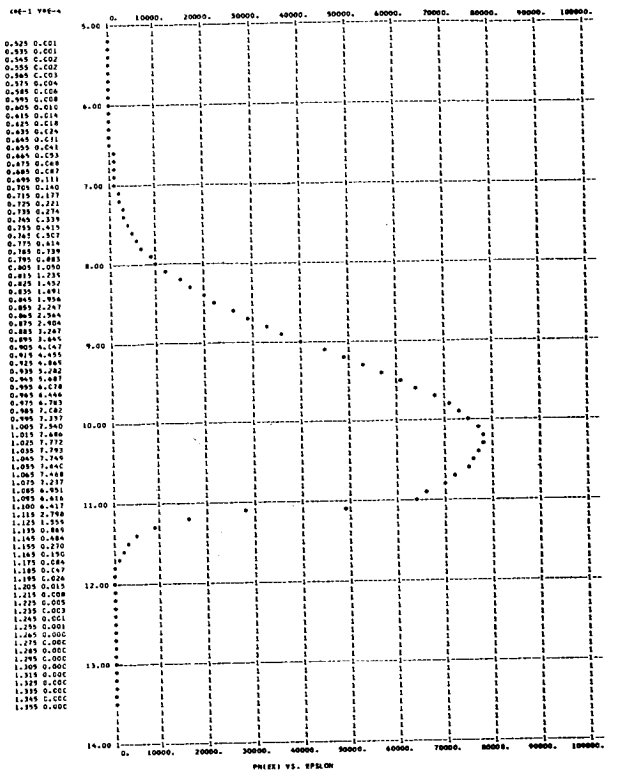
NEM = 0.46731979E 22 NEE = 0.22218254E 06 VXAV = 0.14314155E 09 KEXAV = 0.58607832E 01 KEXFL = 0.84874307E 09

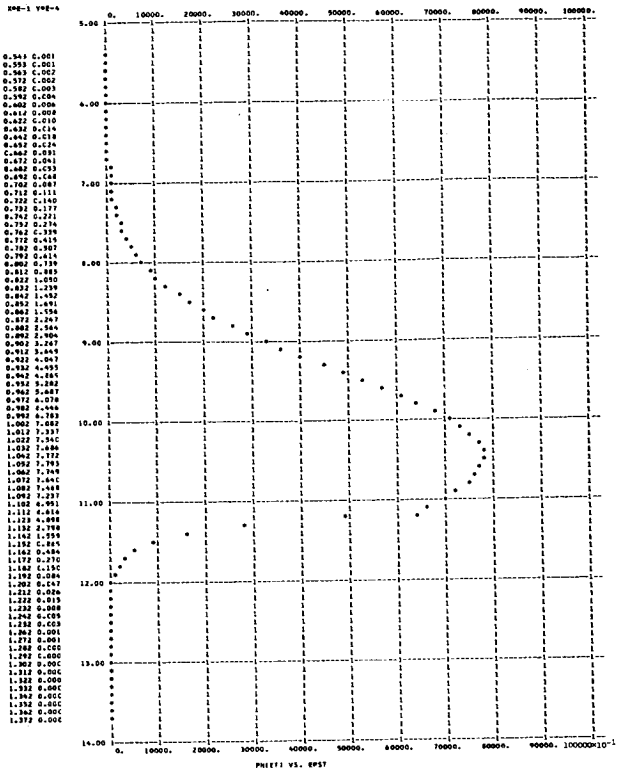
J = 0.509493E-05 KETAV= 0.603313E 01 KETFL= 0.873413E 09 TZERO = 0.466747E 05 TD = 0.160889E 04

Figure 3. - Continued.


X*E-C Y*E-3
0. 250. 500. 750. 1000. 1250. 1500. 1750. 2000. 2250. 2500X10-9
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
J(EX)/DELEX VS. EPSLON


X*E-0 Y*E-3
0. 250. 500. 750. 1000. 1250. 1500. 1750. 2000. 2250. 2500X10-9
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
J(ET)/DELET VS. EPST



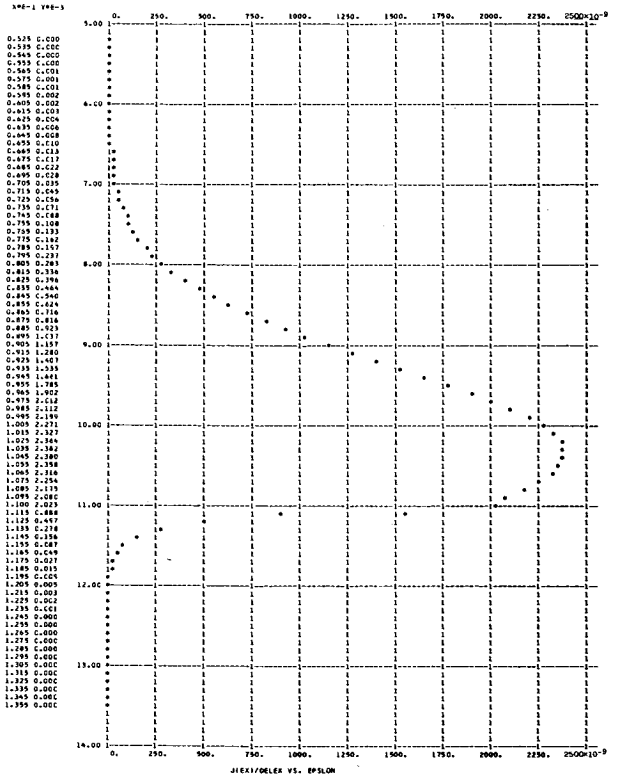


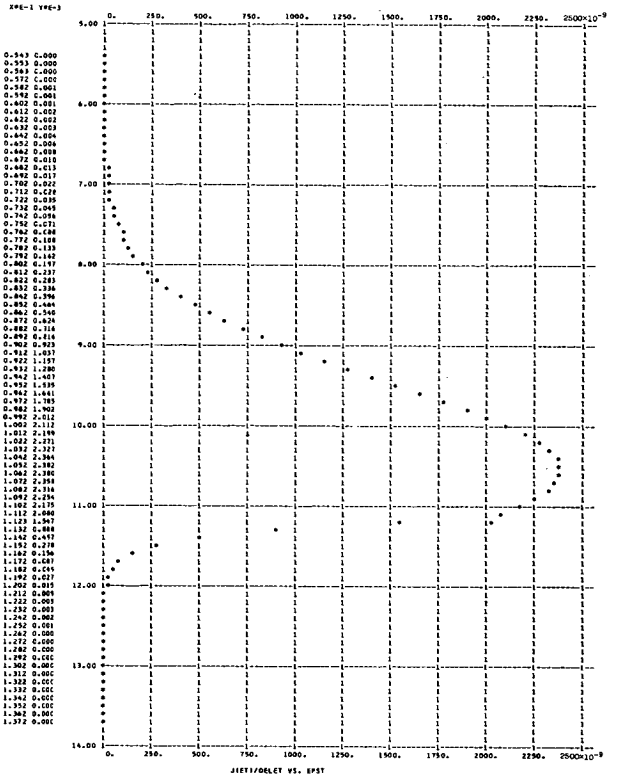
T = 0.2CC000000E 04 E = 0.31622784E 08 PHI = 8.00 AMU = 5.00 EVMAX = 11.0085

NEM = 0.50836430E 23 NEE = 0.17067704E 06 VXAV = 0.18633624E 09 KEXAV = 0.98908611E 01 KEXFL = 0.18502072E 10

J = 0.509489E-05 KETAV= 0.100632E 02 KETFL= 0.188232E 10 TZERO = 0.778530E 05 TD = 0.148516E 04

Figure 3. - Continued.


0. 250. 500. 750. 1000. 1250. 1500. 1750. 2000. 2250. 2500×10⁻⁹
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
13.00
14.00
JIEXI/DELEX VS. EPSLON


0. 250. 500. 750. 1000. 1250. 1500. 1750. 2000. 2250. 2500×10⁻⁹
5.00
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10.00
11.00
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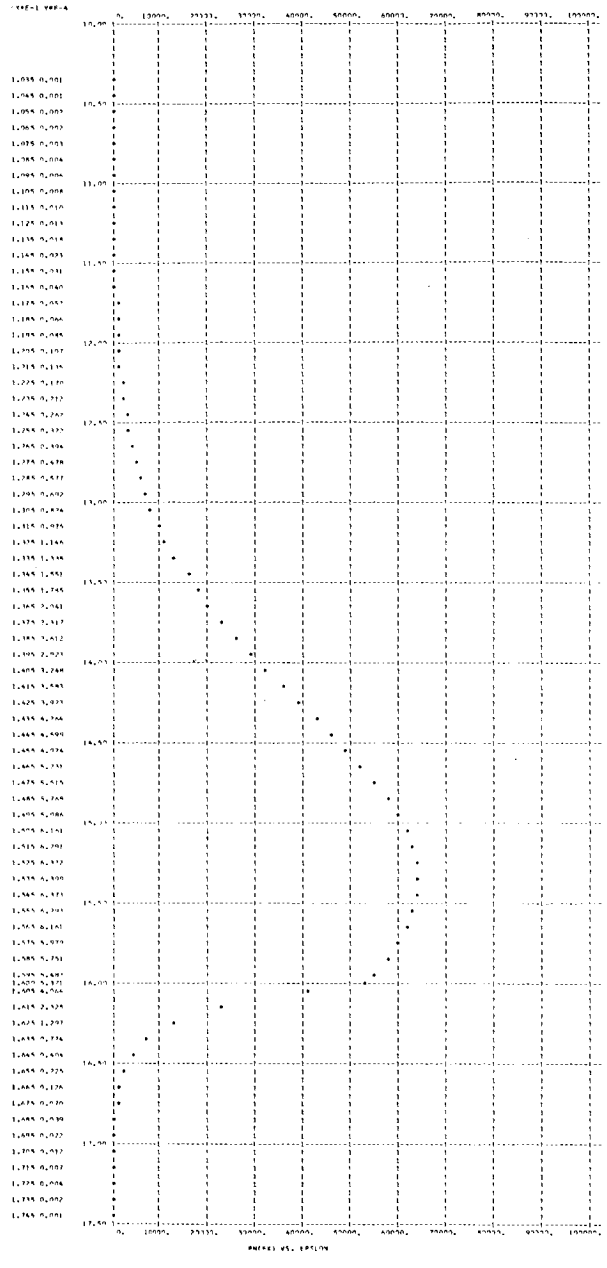
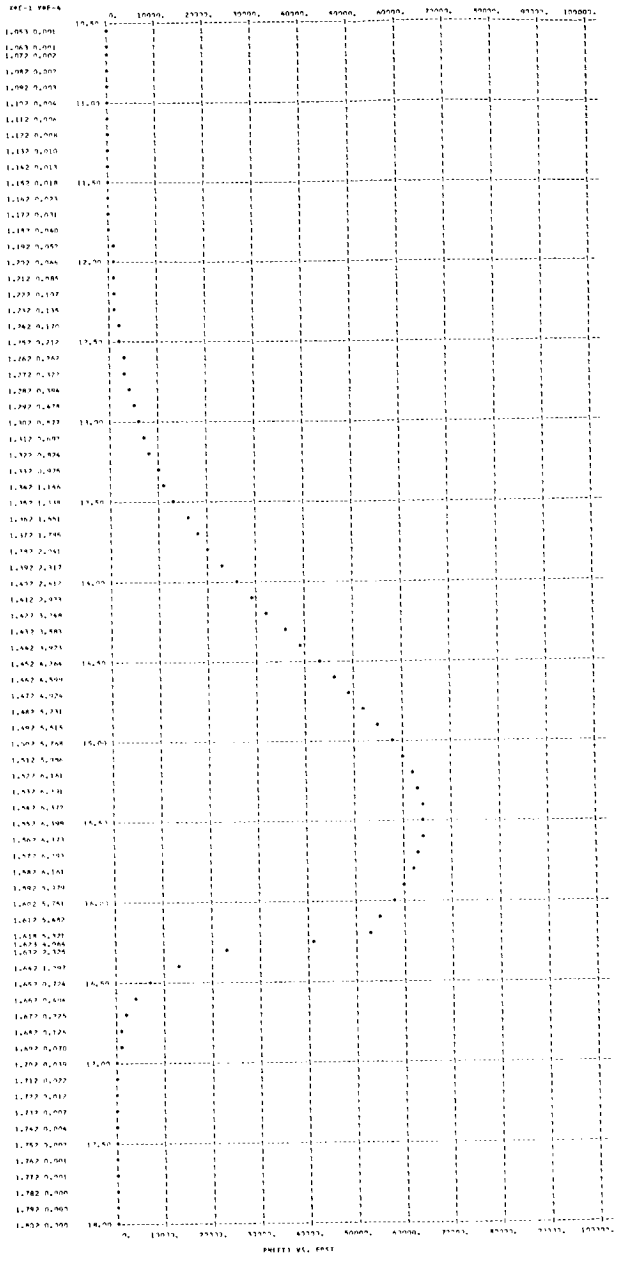
JIETI/DELET VS. EPST



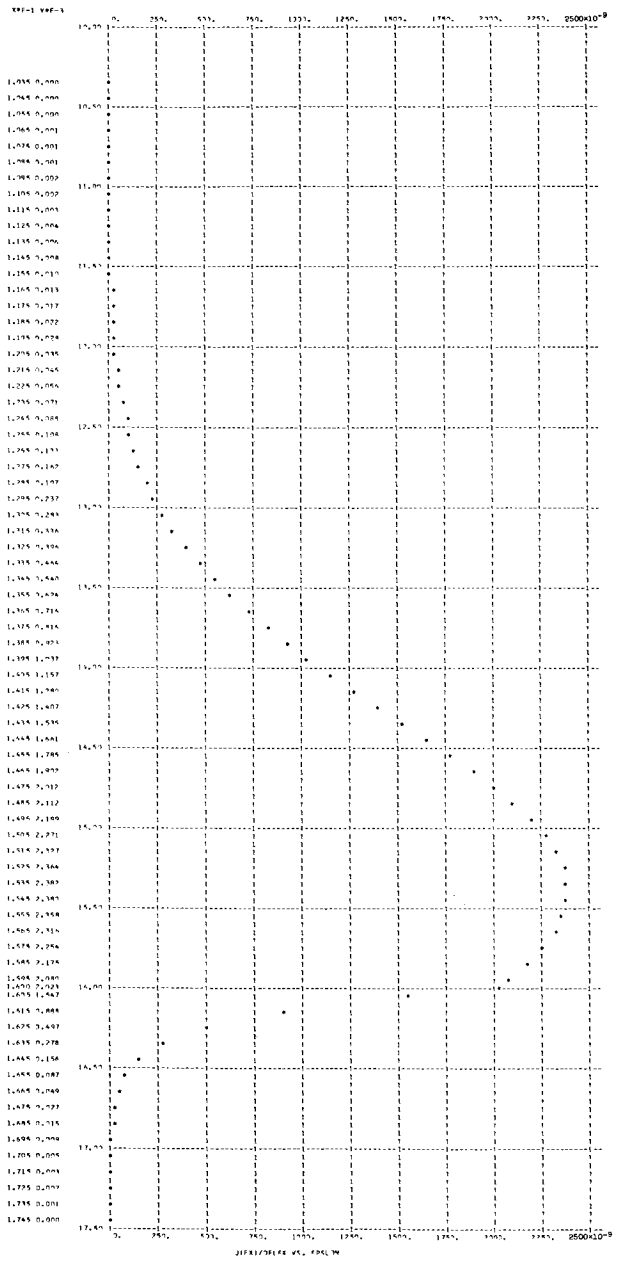


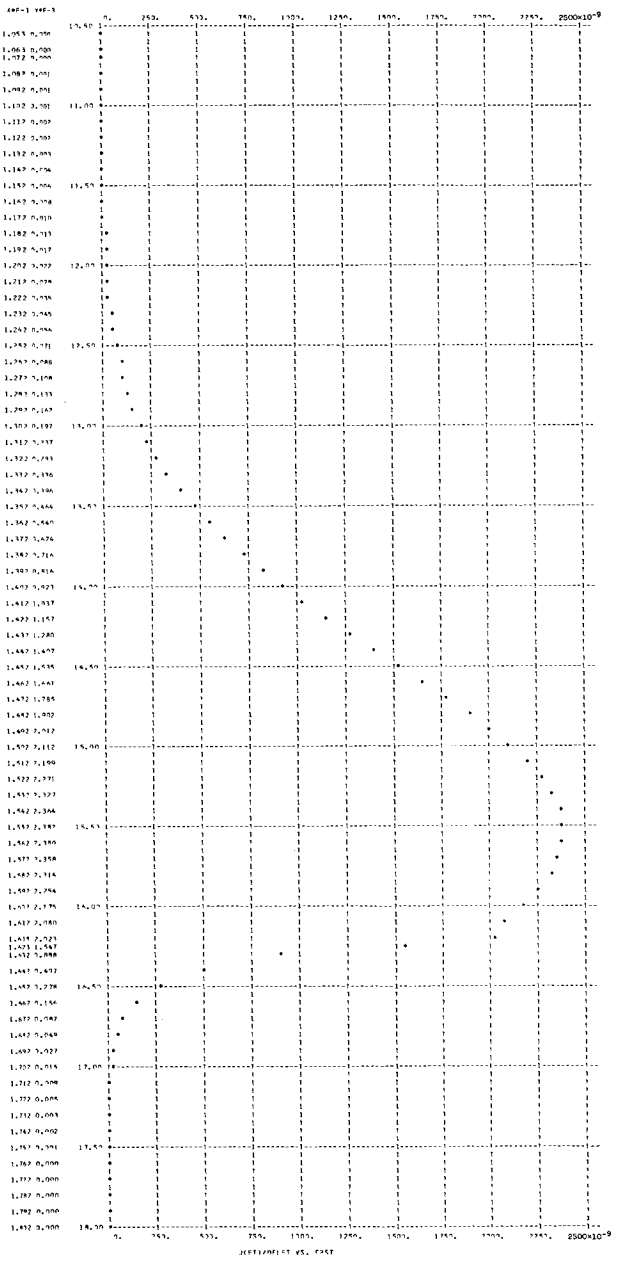
T = 0.2000000OE 04 E = 0.315227884E 03 PHI = 8.00 AMI = 10.00 EVMAX = 16.0085

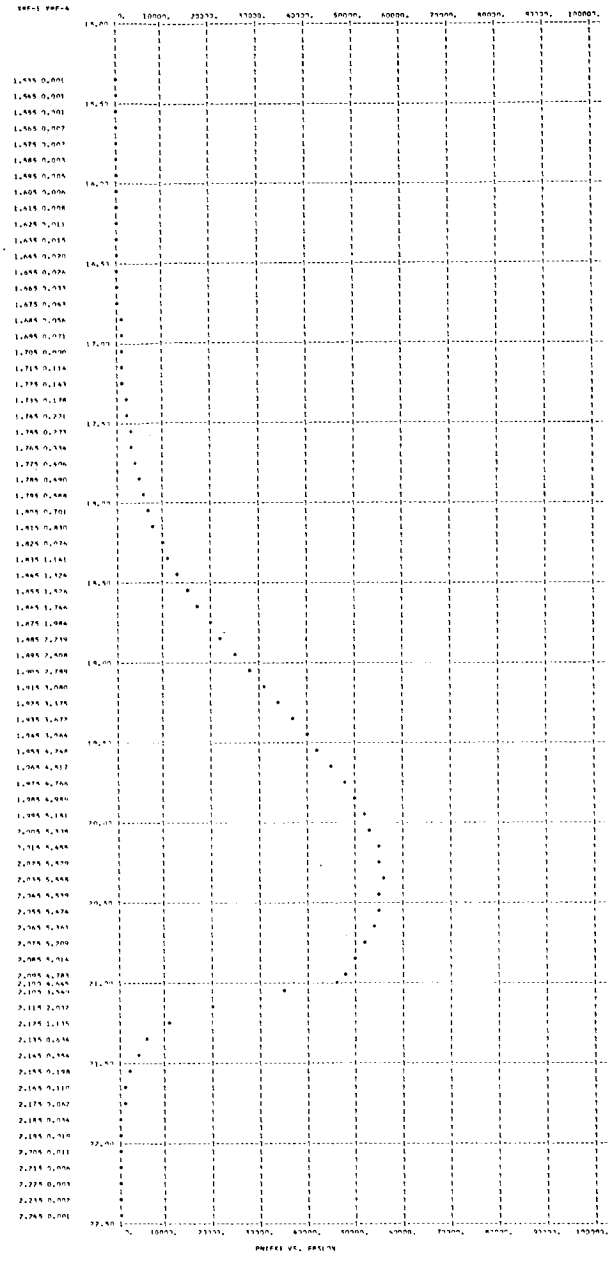
NEM = 0.14370953E 24 NEE = 0.13895947E 06 VXAV = 0.22886714E 09 KEXAV = 0.14904348E 02 KEXEL = 0.36159490E 10

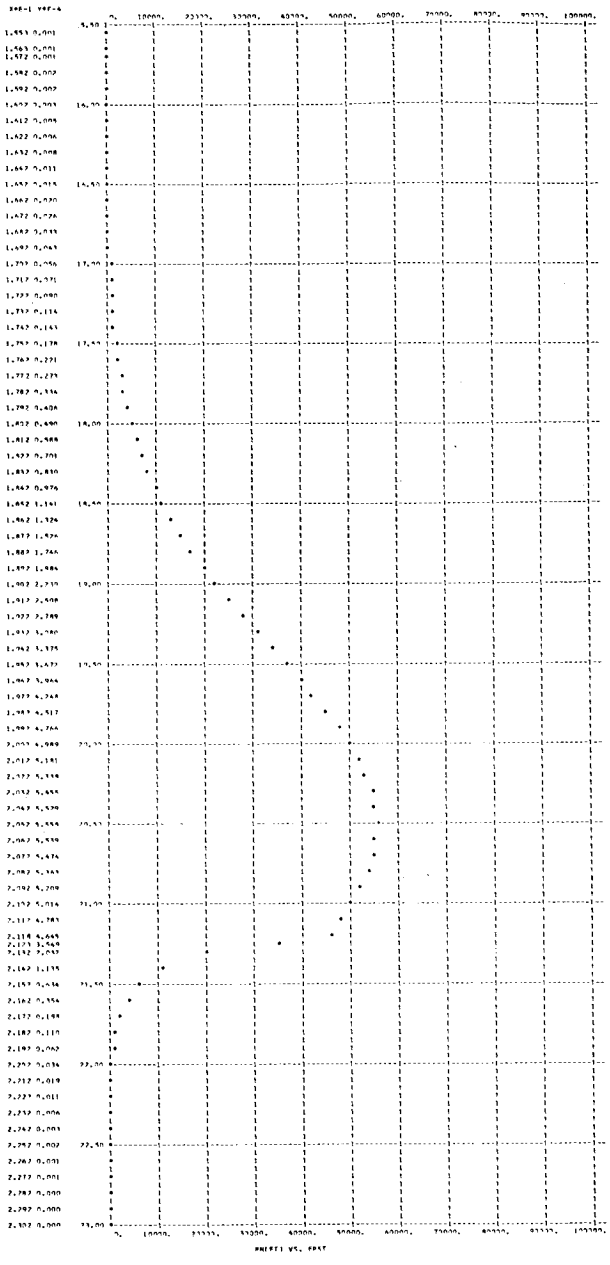
J = 0.509488E-05 KETAV= 0.1507475E 02 KETEL= 0.3456298E 10 TZERO = 0.1166395E 06 TJ = 0.1431305E 06

Figure 3. - Continued.







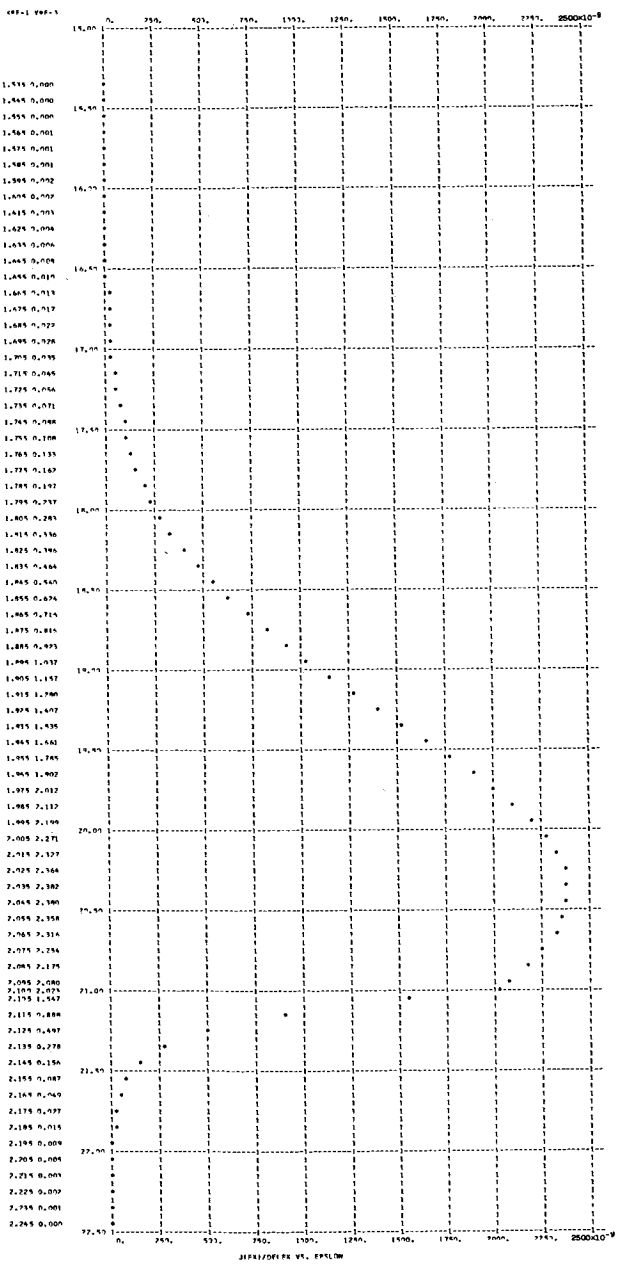


T = 0.200000000E 04 E = 0.315227846E 03 PHI = 8.00 AMU = 15.00 EVMAX = 21.0085

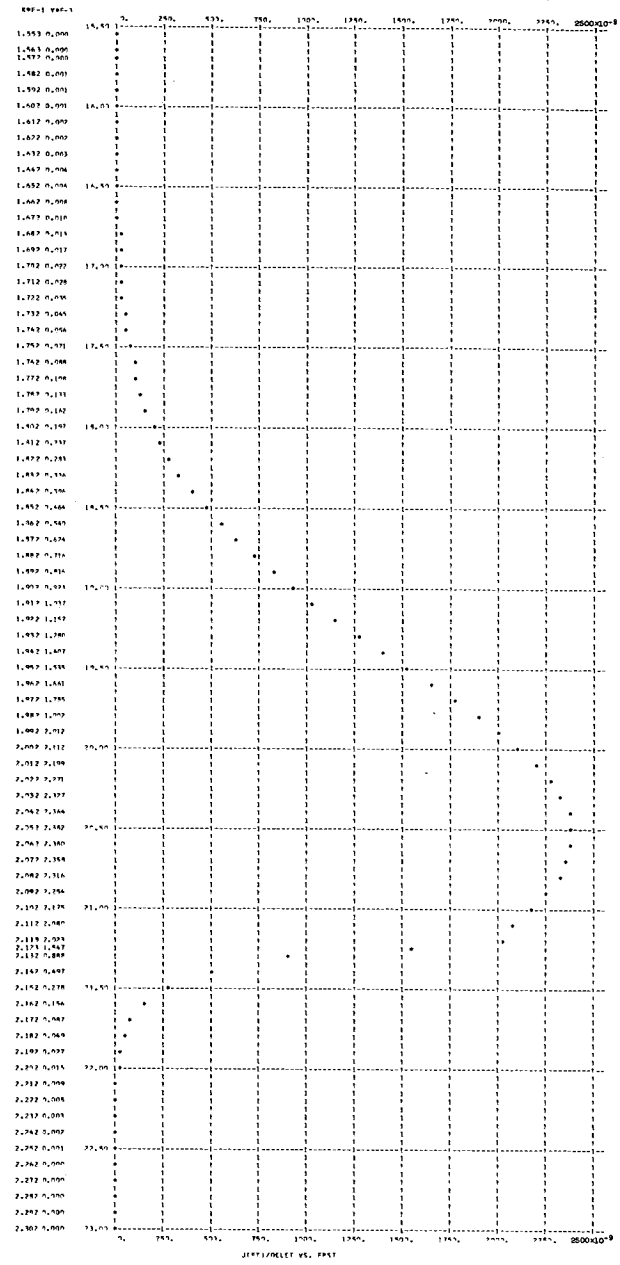
NEM = 0.263994495 24 NEE = 0.123203311E 06 VXAV = 0.246578156 09 KEXAV = 0.199108165 02 KEXEL = 0.527298832E 10

J = 0.509487E-05 KETAV= 0.200883E 02 KETEL= 0.531848E 10 TZERO = 0.165371E 05 TJ = 0.140577E 04

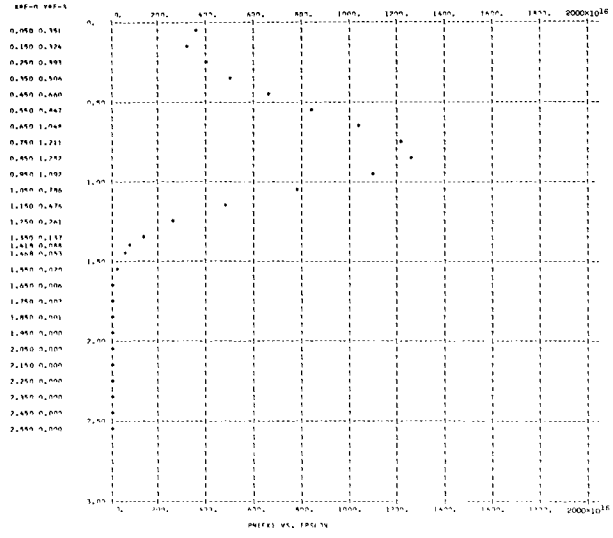
Figure 3. - Continued.

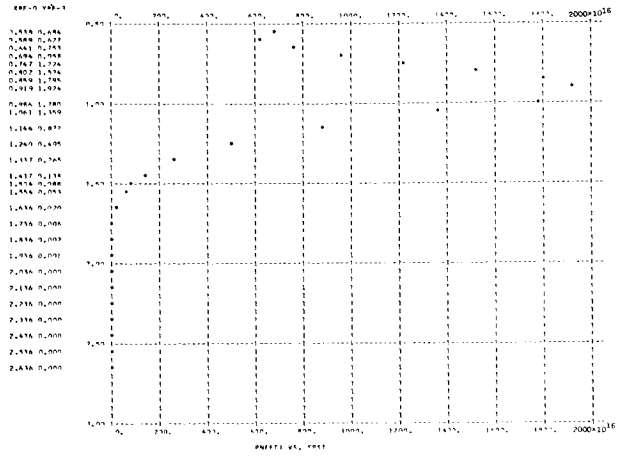


JERI/DERR VS. EPSLON



JERI/DELET VS. EPST



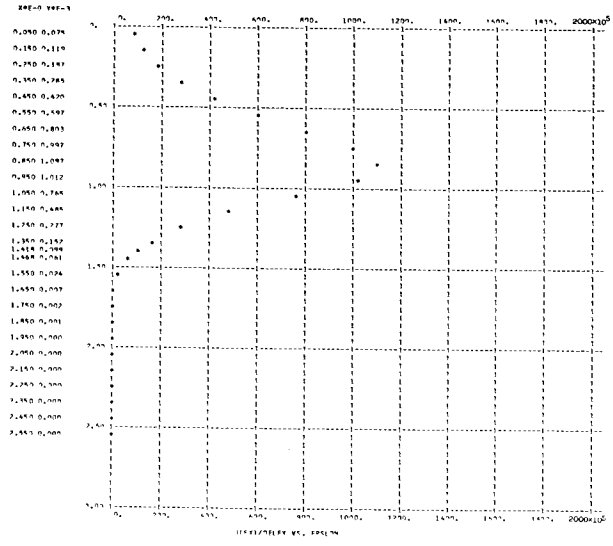


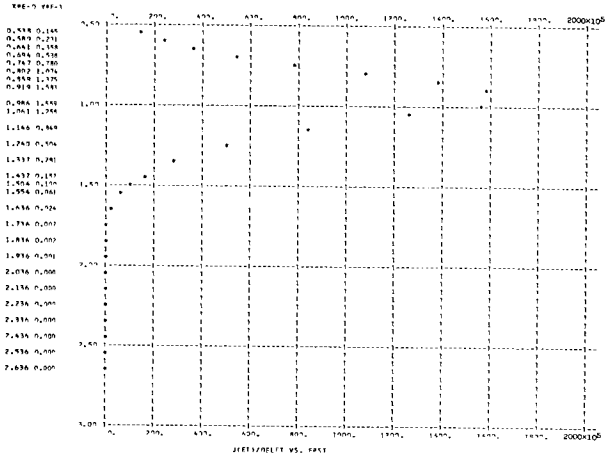
T = 1.000000000E 03 F = 0.315227846E 08 PAI = 2.00 AMU = 1.00 EVMAX = 1.4353

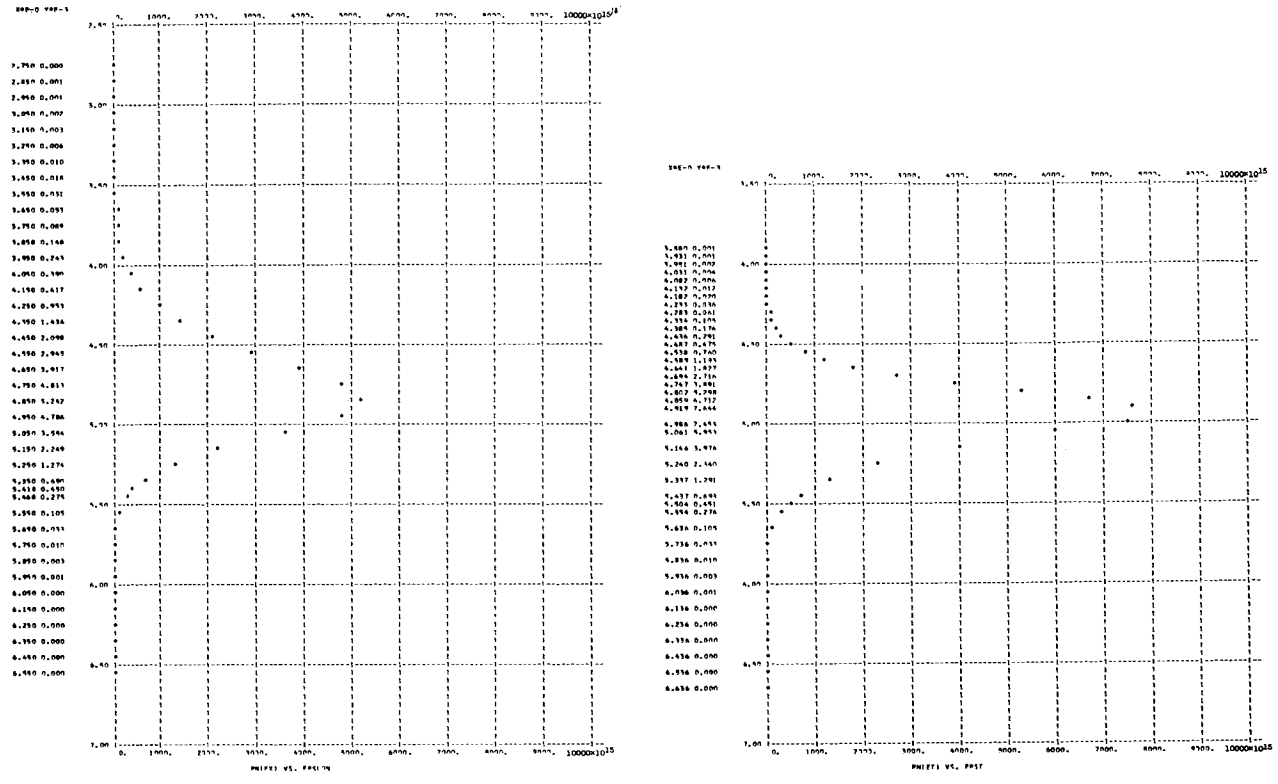
NEM = 0.45427839E 22 NEE = 0.950815825E 19 VXAV = 0.482346626E 08 KEXAV = 0.711912598E 00 KEXSI = 0.385555776E 08

J = 0.741668E 08 KETAV= 0.920414E 00 KETEL= 0.470927E 08 EZERO = 0.712093E 04 T3 = 0.233371E 04

Figure 3. - Continued.





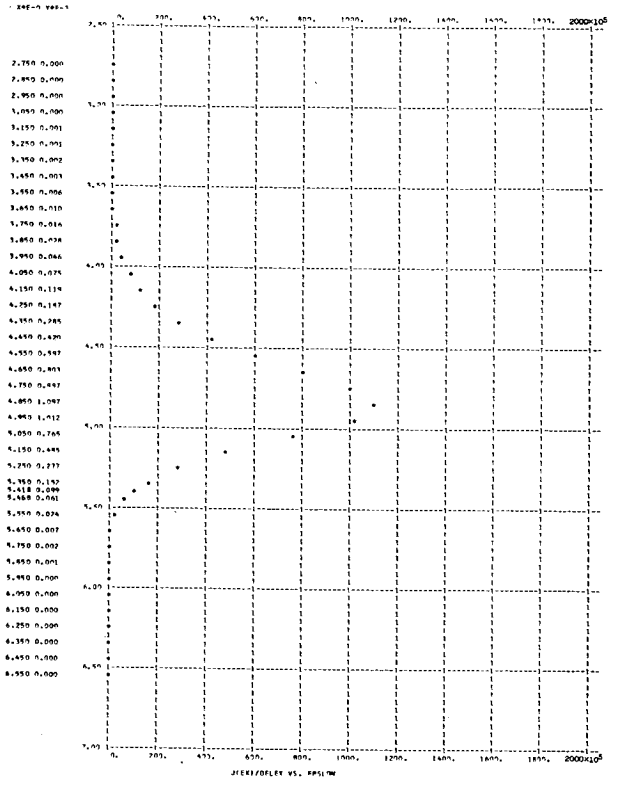


T = 1.000000000E 03 E = 0.31522784E 08 PHI = 2.00 AMI = 5.00 EVMAX = 5.4353

NEM = 0.50780509E 23 NEE = 0.36291281E 19 VXAV = 0.12956179E 09 KEXAV = 0.47775663E 01 KEXEI = 0.52333063E 09

J = 0.74910JE 08 KETAV= 0.49533UE 01 KETEI= 0.6439I2E 09 TZERO = 0.383957E 05 TJ = 0.1475U6E 04

Figure 3. - Continued.


0.
200.
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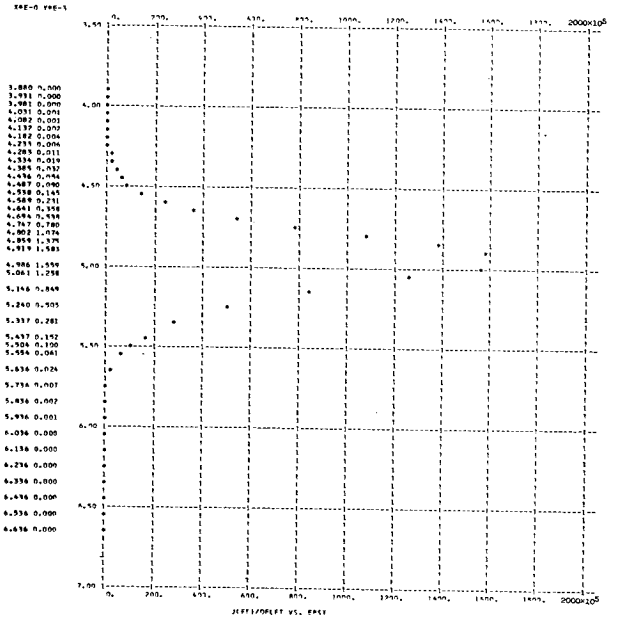
1800.
2000x10^5
JCERI/DELEY VS. EPSLON


0.
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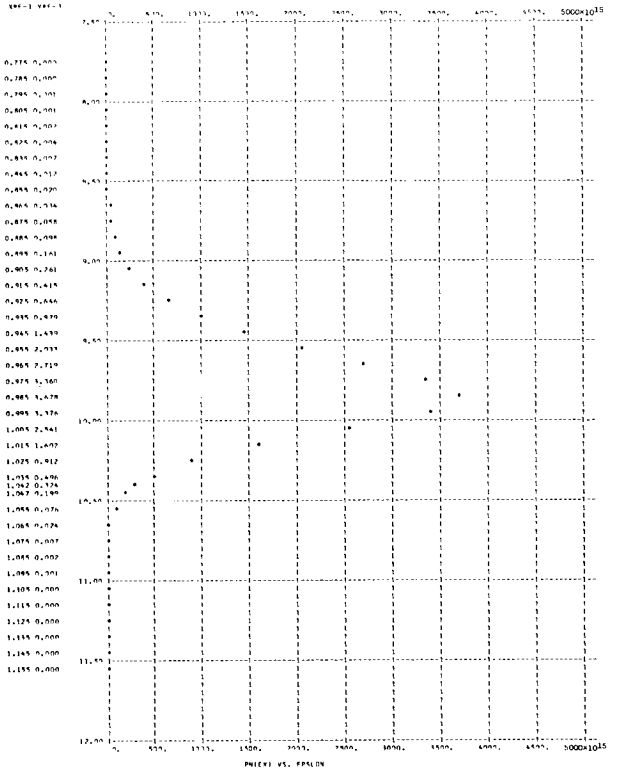
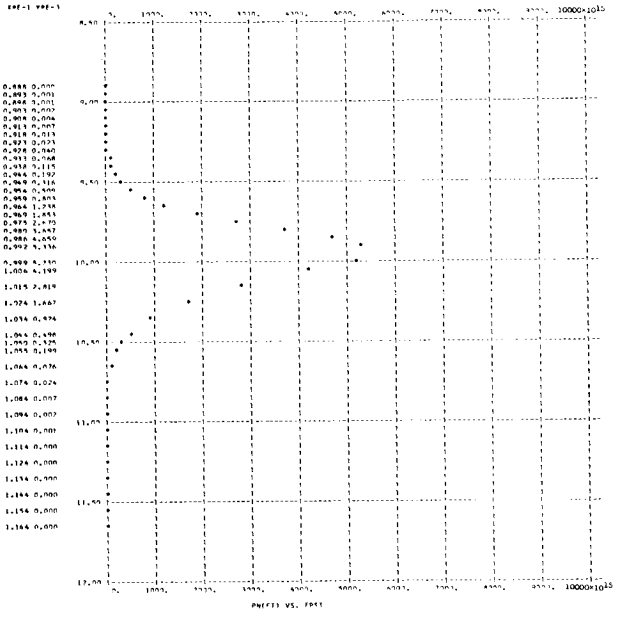
2000x10^5
JCEFI/DELET VS. EPSE



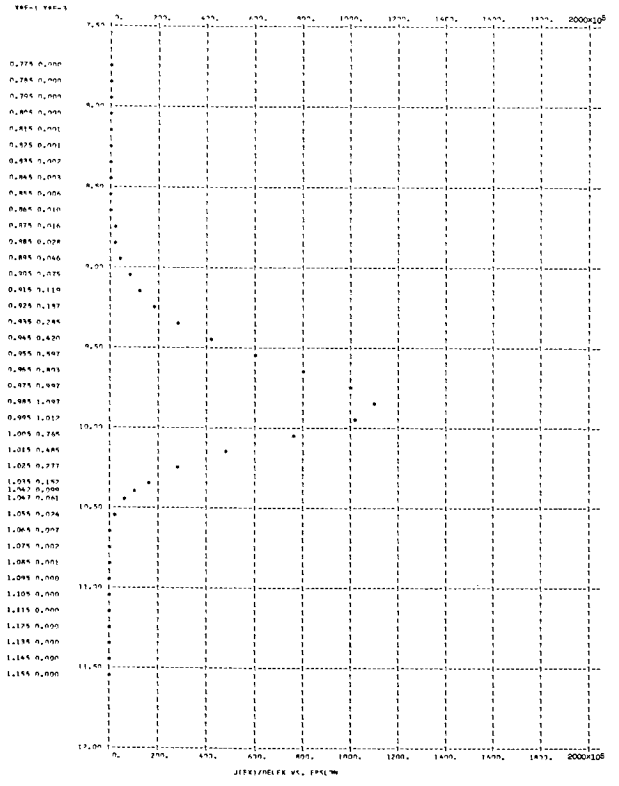


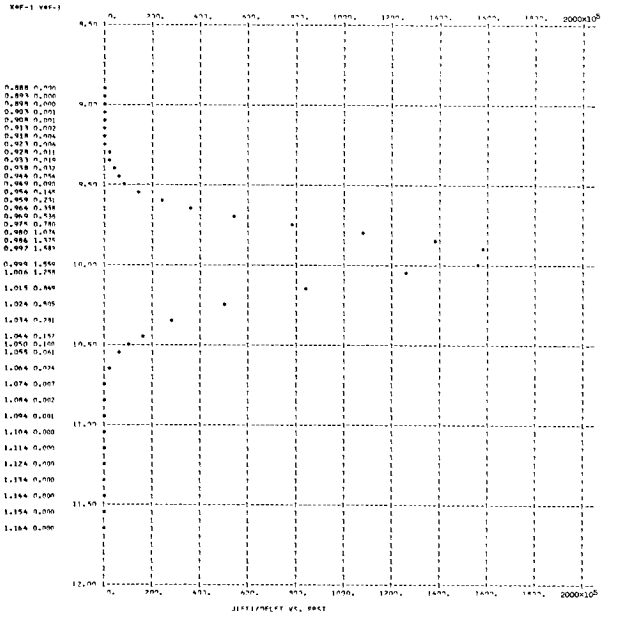
T = 1.000000000E 03 E = 0.315327784E 08 PHI = 2.00 AMJ = 10.00 EVMAX = 10.4353

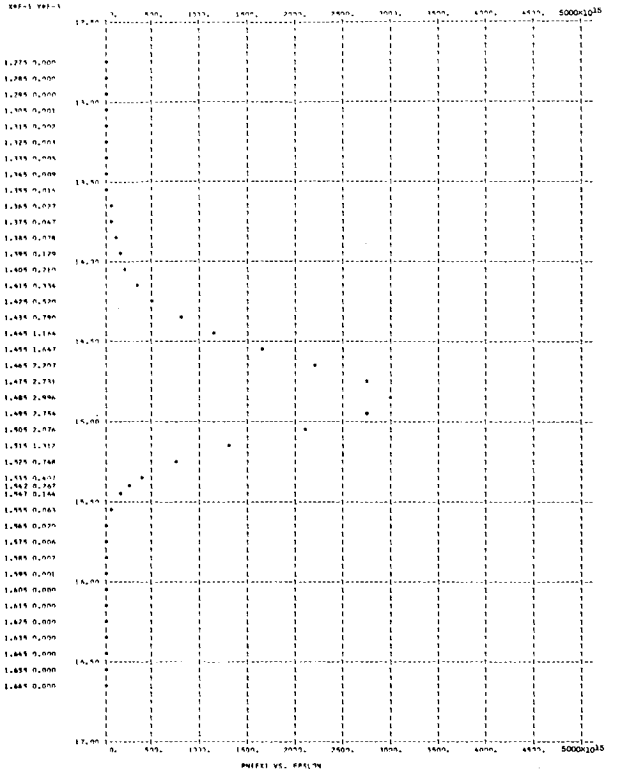
NEM = 0.14367002E 24 NEF = 0.252106878E 19 VXAV = 0.185477756E 09 KEXAV = 0.978205635E 01 KEXEL = 0.181543818E 10

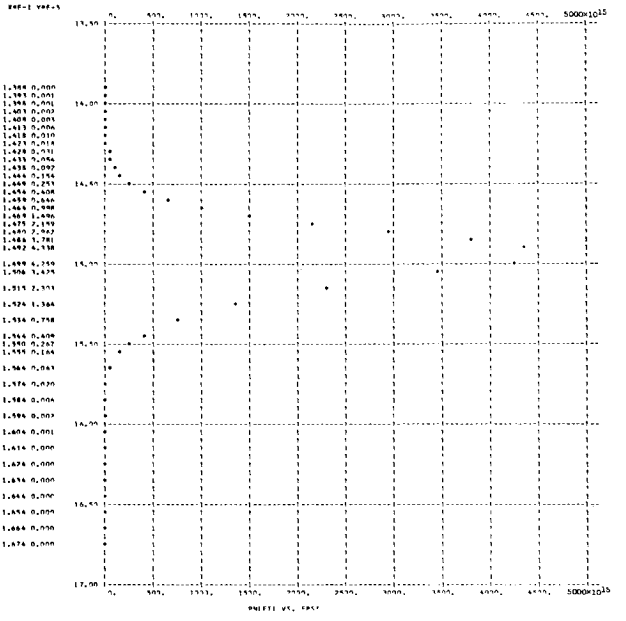
J = 0.749098E 08 KETAV= 0.995559E 01 KETEL= 0.184920E 10 TZERO = 0.771055E 05 TJ = 0.143987E 04

Figure 3. - Continued.







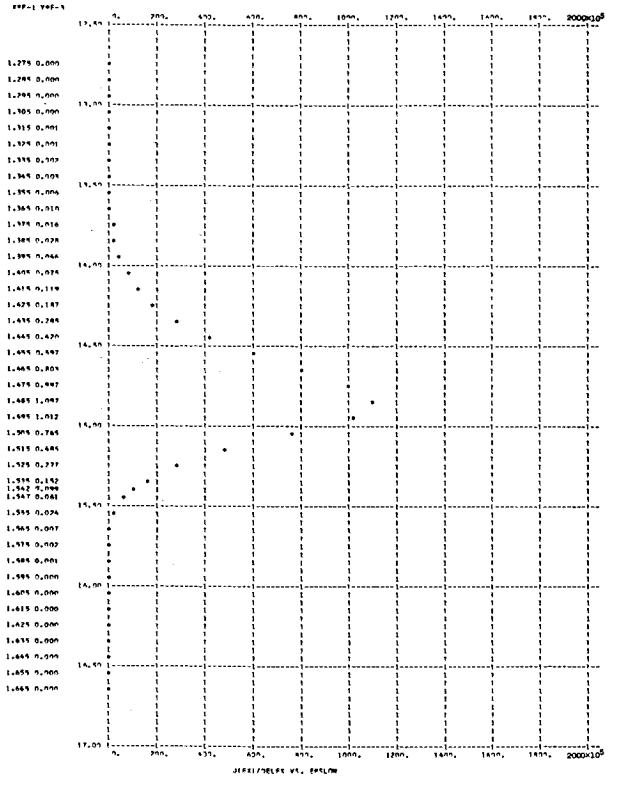


T = 1.00000000E 03 F = 0.315227846 09 PHI = 2.00 AMU = 15.00 EVMAX = 15.4353

NEM = 0.26396224E 24 NEF = 0.20506000E 19 VXAV = 0.22803758E 09 KEXAV = 0.14784650E 02 KEXEL = 0.33723963E 10

J = 0.749094E 08 KETAV= 0.149577E 02 KETEL= 0.341360E 10 TZERO = 0.115796E 05 TD = 0.142897E 04

Figure 3. - Continued.


XPP-1 YPP-1
0.
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1400.
1600.
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2000x10^5
17.50
17.00
16.50
16.00
15.50
15.00
14.50
14.00
1.275 0.000
1.285 0.000
1.295 0.000
1.305 0.000
1.315 0.001
1.325 0.001
1.335 0.002
1.345 0.003
1.355 0.006
1.365 0.010
1.375 0.016
1.385 0.028
1.395 0.046
1.405 0.074
1.415 0.119
1.425 0.187
1.435 0.288
1.445 0.439
1.455 0.657
1.465 0.959
1.475 0.997
1.485 1.097
1.495 1.012
1.505 0.786
1.515 0.485
1.525 0.237
1.535 0.152
1.542 0.099
1.547 0.081
1.555 0.024
1.565 0.007
1.575 0.002
1.585 0.001
1.595 0.000
1.605 0.000
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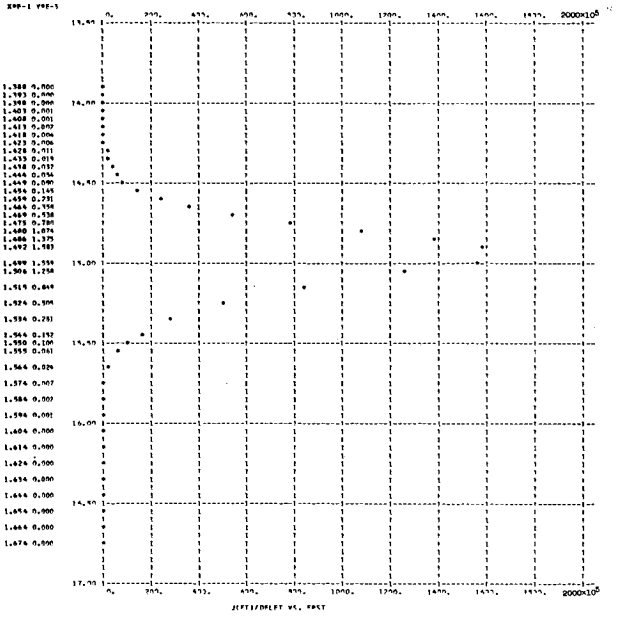
1.655 0.000
1.665 0.000
JEFI/DELFF VS. EPSLON


XPP-1 YPP-1
0.
200.
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600.
800.
1000.
1200.
1400.
1600.
1800.
2000x10^5
17.50
17.00
16.50
16.00
15.50
15.00
14.50
14.00
1.388 0.000
1.393 0.000
1.398 0.000
1.403 0.001
1.408 0.001
1.413 0.002
1.418 0.004
1.423 0.006
1.428 0.011
1.433 0.019
1.438 0.032
1.444 0.054
1.449 0.090
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1.475 0.788
1.480 1.074
1.486 1.375
1.492 1.583
1.499 1.559
1.506 1.258
1.514 0.849
1.524 0.504
1.534 0.281
1.544 0.152
1.550 0.100
1.555 0.061
1.564 0.026
1.574 0.007
1.584 0.002
1.594 0.001
1.604 0.000
1.614 0.000
1.624 0.000
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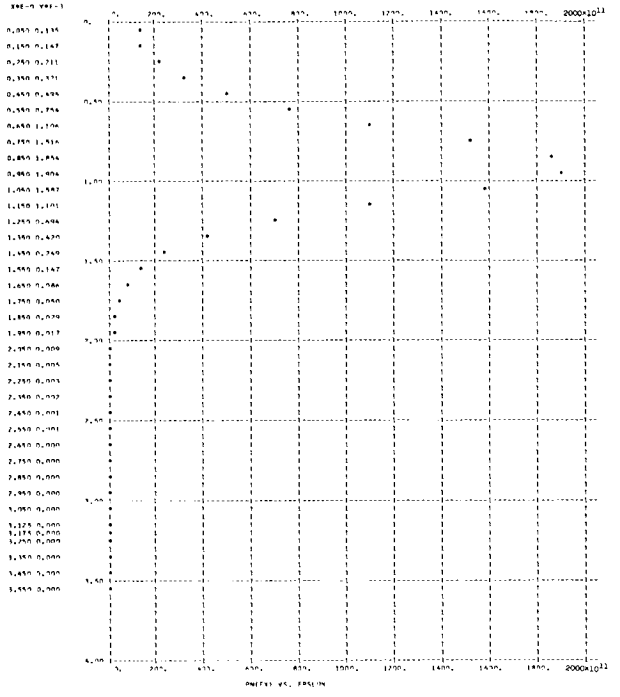
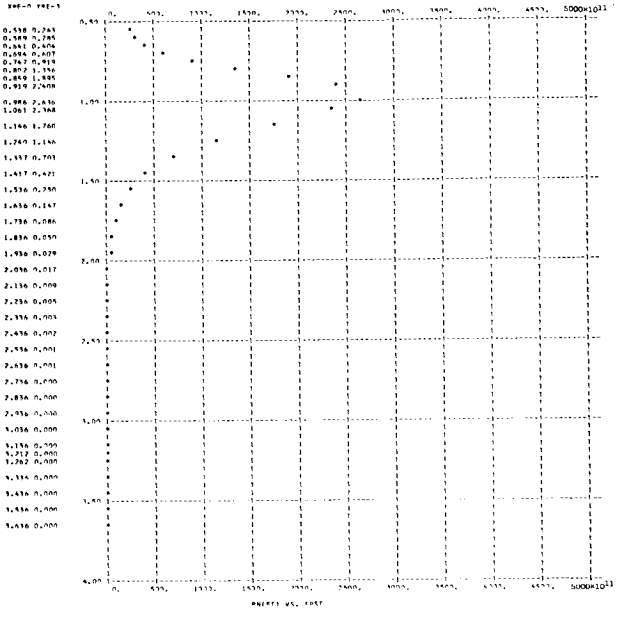
1.644 0.000
1.654 0.000
1.664 0.000
1.674 0.000
JEFI/DELFF VS. FAST



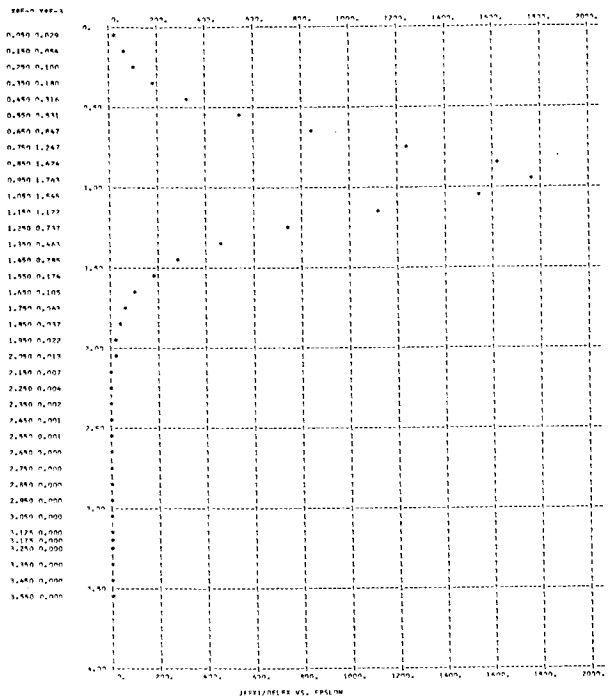


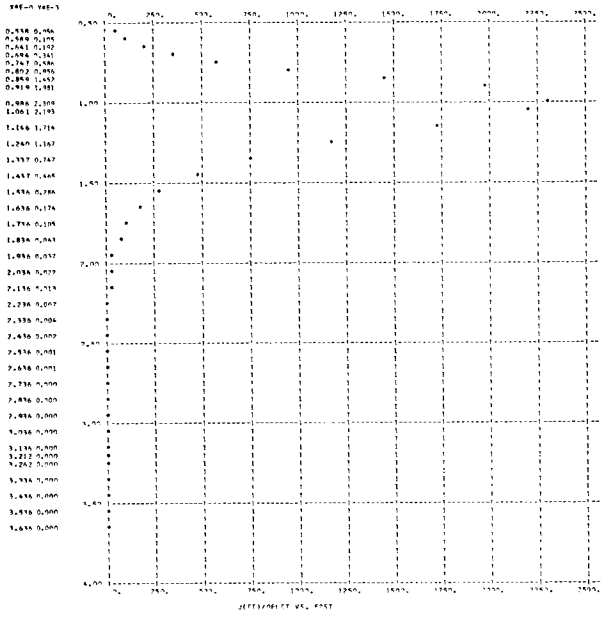
T = 1.00000000E 03 E = 0.31522784E 08 PHI = 4.00 AMU = 1.00 EVMAX = 3.1508

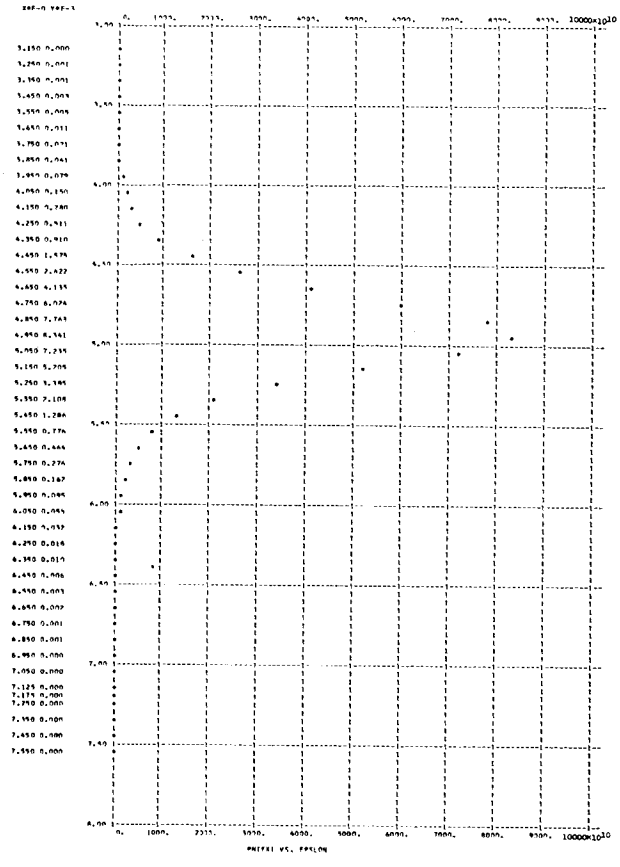
NEM = 0.45427783E 22 NEE = 0.12910164E 15 VXAV = 0.54509239E 08 KEXAV = 0.88287383E 00 KEXEL = 0.51447411E 08

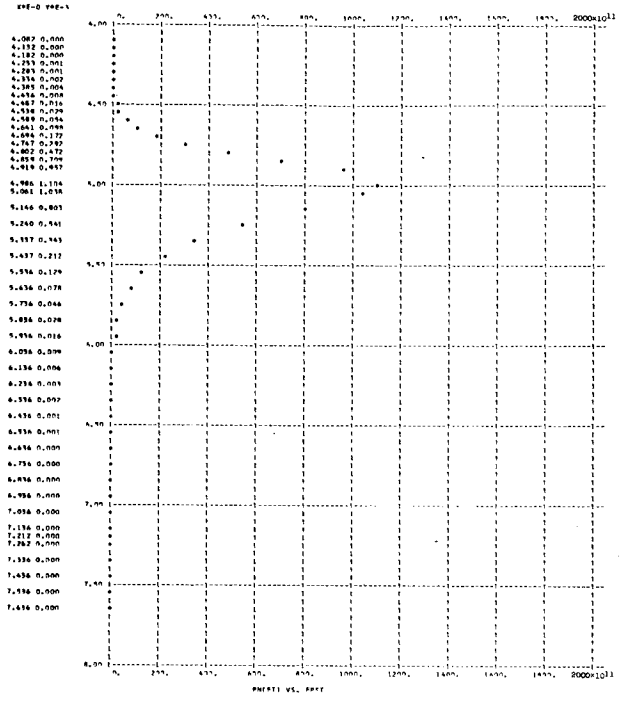
J = 0.11294JE 04 KETAV= 0.104087E 01 KETEL= 0.593474E 08 TZERO = 0.805260E 04 TO = 0.149344E 04

Figure 3. - Continued.







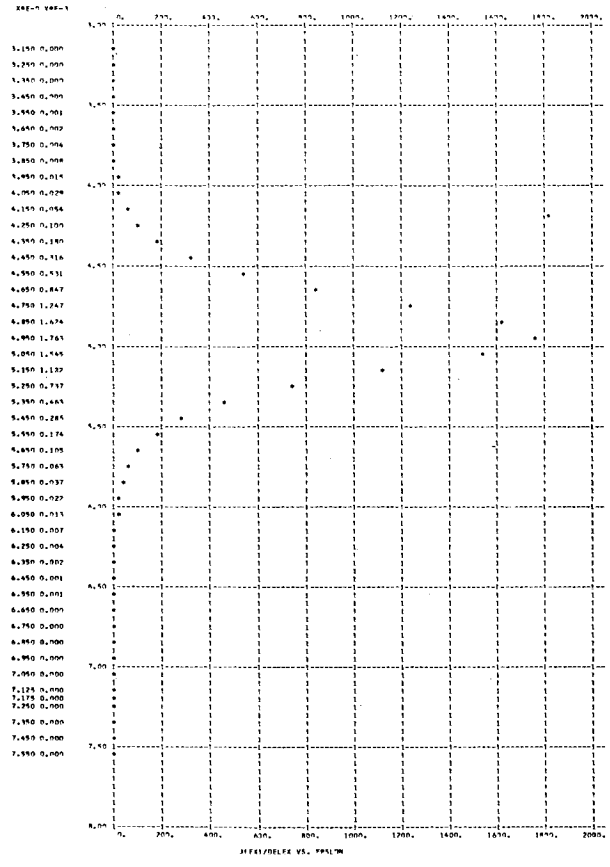


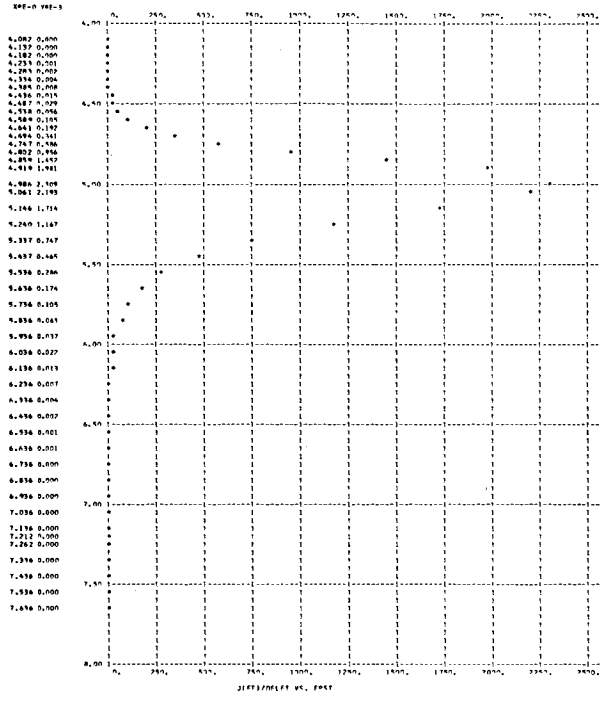
T = 1.000000000E 03 F = 0.31522784E 09 PHI = 4.00 AMU = 5.00 EVMAX = 7.1509

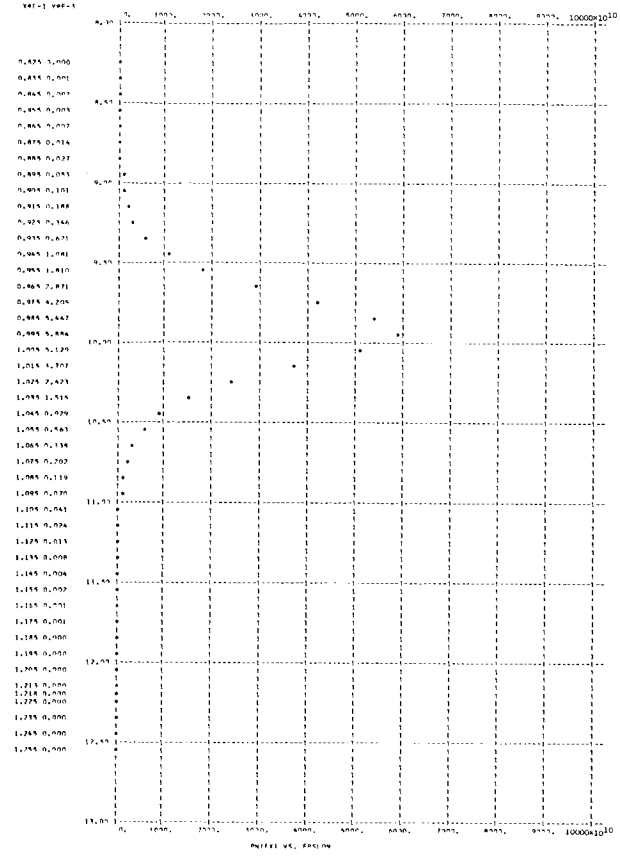
NEM = 0.507805066E 23 NEE = 0.535958986E 14 VXAV = 0.131684056E 09 KEXAV = 0.493461256E 01 KEXEL = 0.651035726E 09

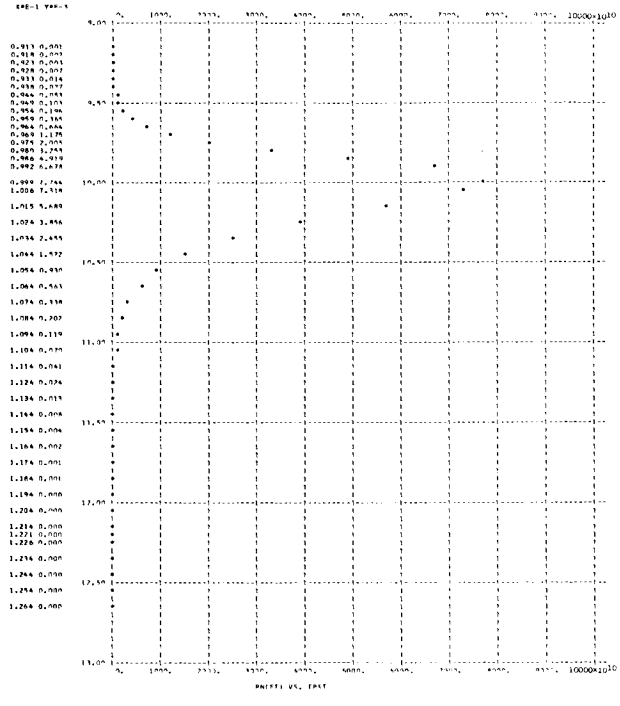
J = 0.113065E 04 KETAV= 0.507840E 01 KETEL= 0.669706E 09 TZERO = 0.392885E 05 TD = 0.114842E 06

Figure 3. - Continued.


0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000.
JIFX1/DELFX VS. PPSLTM


0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000.
JIFY1/DELFY VS. PPST



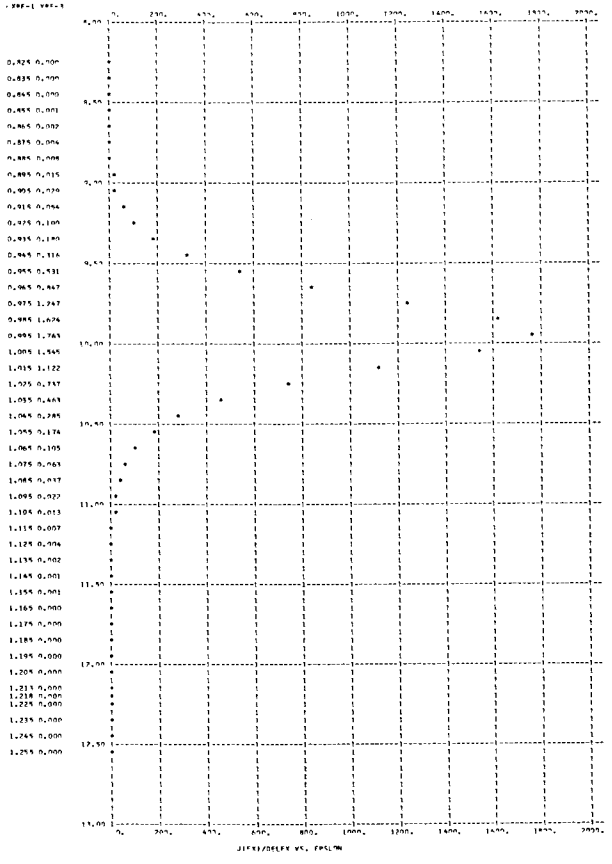


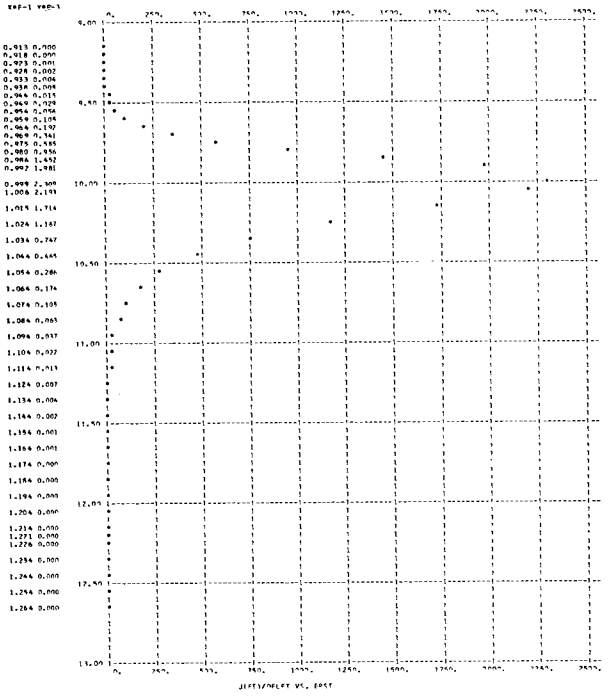
T = 1.000000000E 03 E = 0.31522784E 03 PHI = 4.00 AMU = 10.00 EVMAX = 12.1598

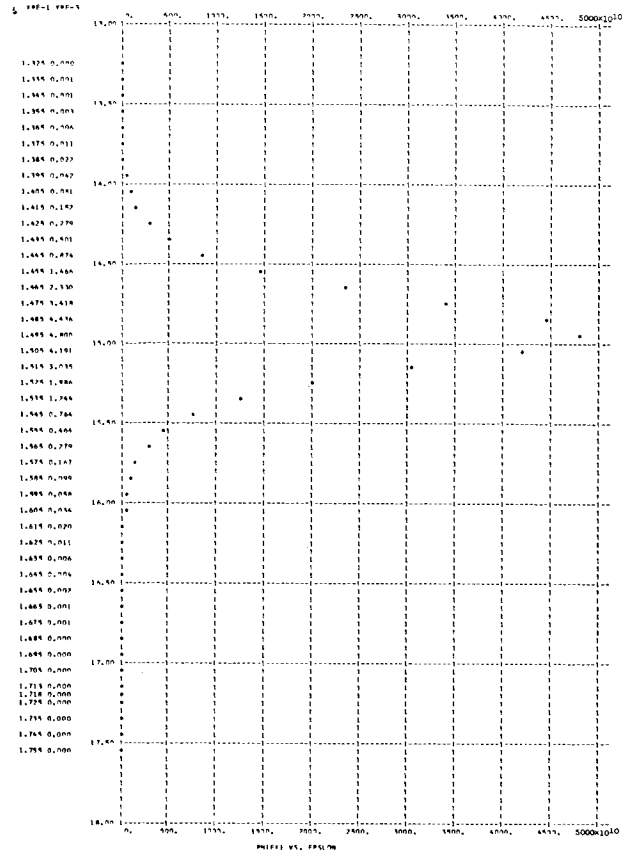
NEM = 0.14367002E 24 NEE = 0.37750615E 14 VXAV = 0.18695590E 09 KEXAV = 0.99393038E 01 KEXEL = 0.18590748E 10

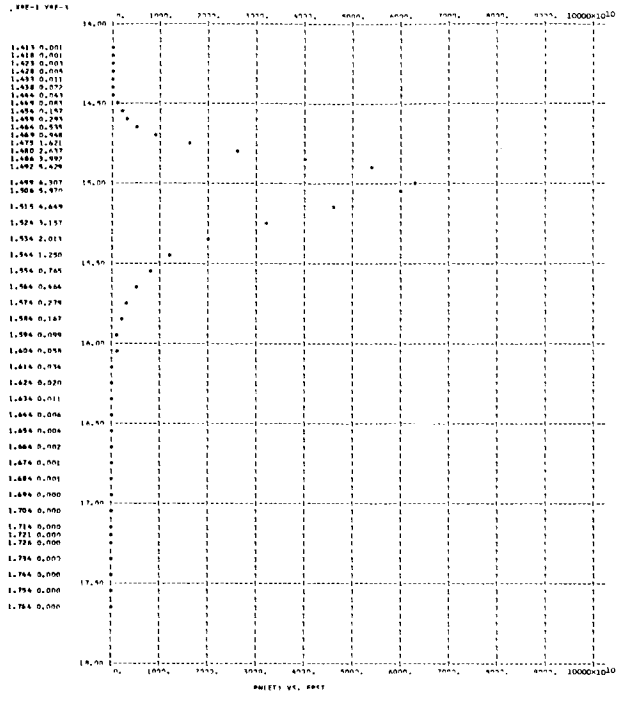
J = 0.1130646E 04 KETAV= 0.1008821E 02 KETEL= 0.188559E 10 TZERO = 0.7799886E 05 TJ = 0.1122238E 04

Figure 3. - Continued.







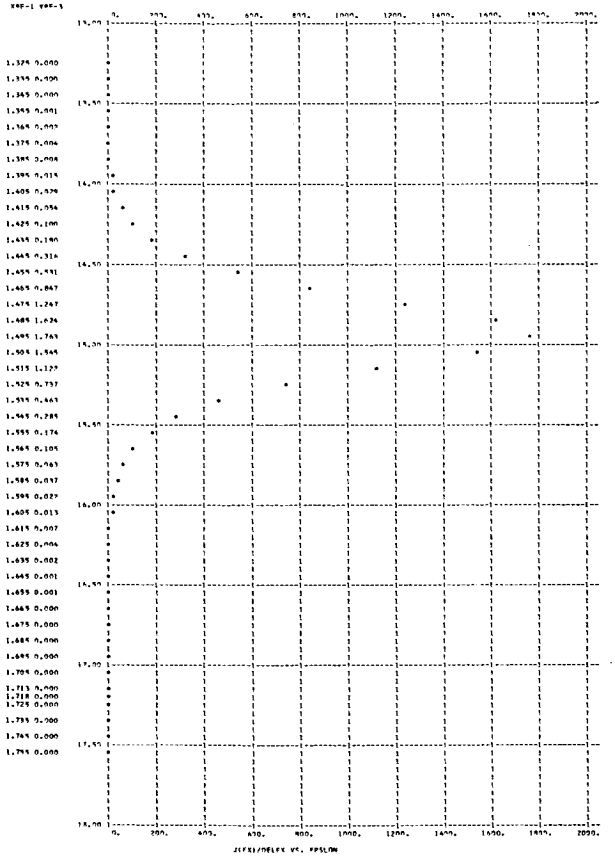


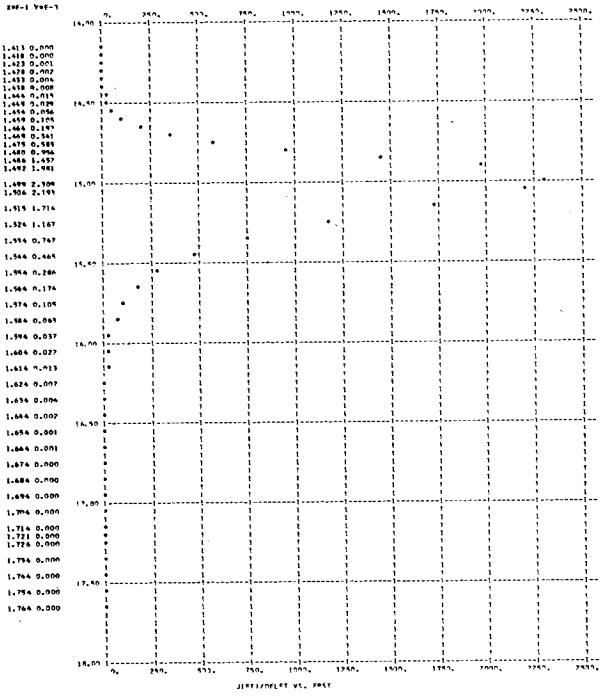
T = 1.000000000E 03 E = 0.31522784E 09 PHI = 4.00 AMU = 15.00 EVMAX = 17.1508

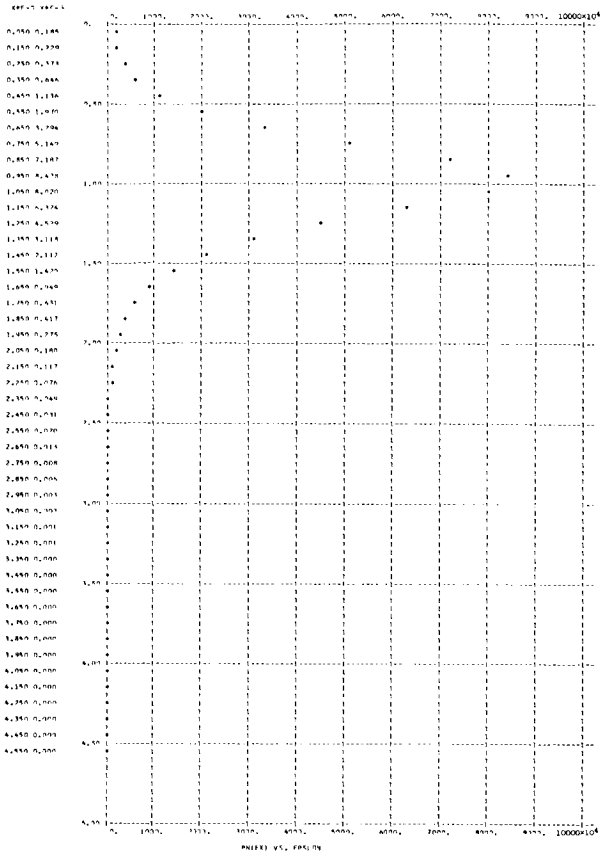
NEM = 0.26396224E 24 NEE = 0.30787855E 14 VXAV = 0.22923288E 09 KEXAV = 0.14940848E 02 KEXEL = 0.34255382E 10

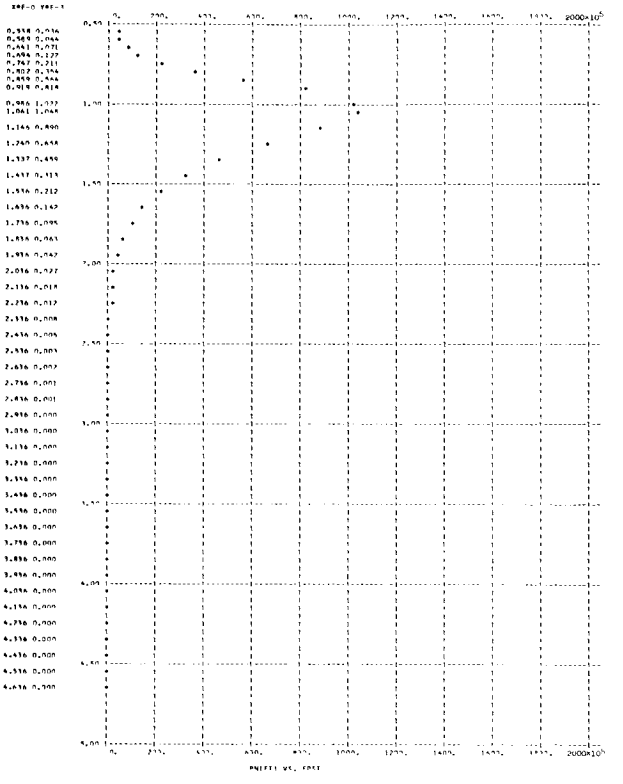
J = 0.113063E 04 KETAV= 0.150833E 02 KETEL= 0.345814E 10 TZERO = 0.116690E 05 TJ = 0.111371E 04

Figure 3. - Continued.







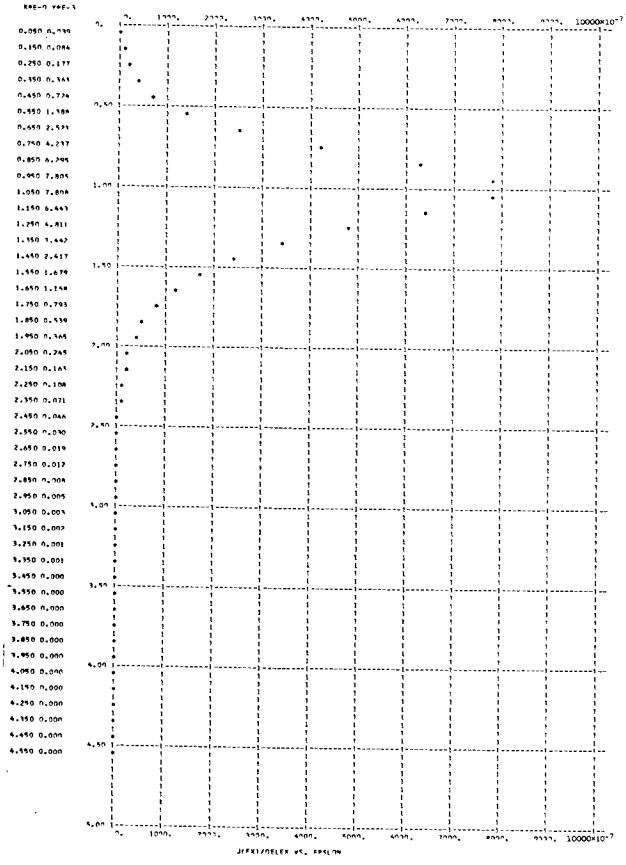


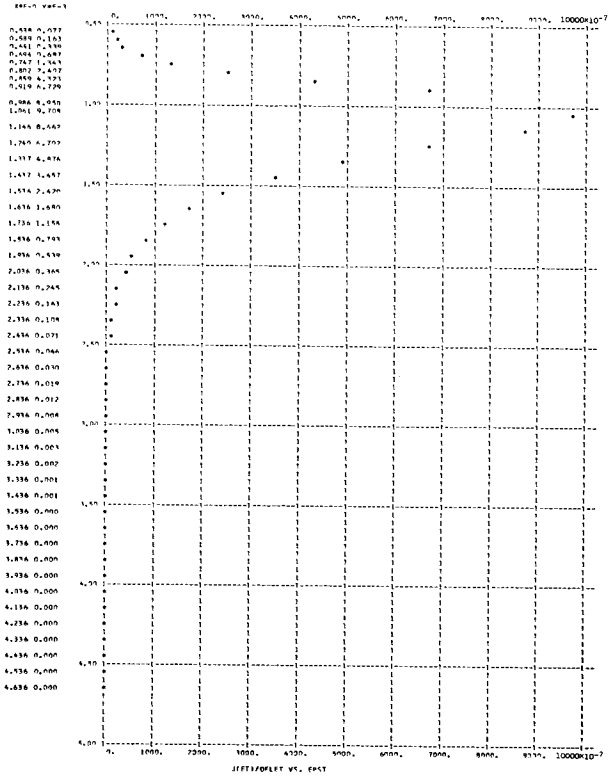
T = 1.000000000E 03 E = 0.315227846E 08 PHI = 6.00 AMU = 1.00 EVMAX = 5.0559

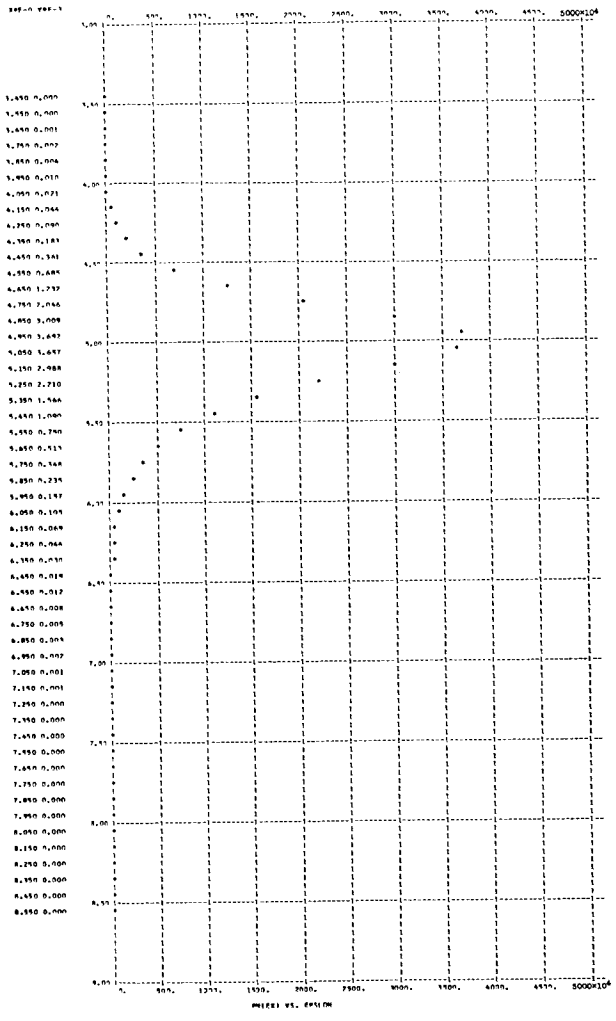
NEM = 0.454277836E 22 NEE = 0.572031976E 08 VXAV = 0.580647956E 08 KEXAV = 0.101803876E 01 KEXEL = 0.633629236E 08

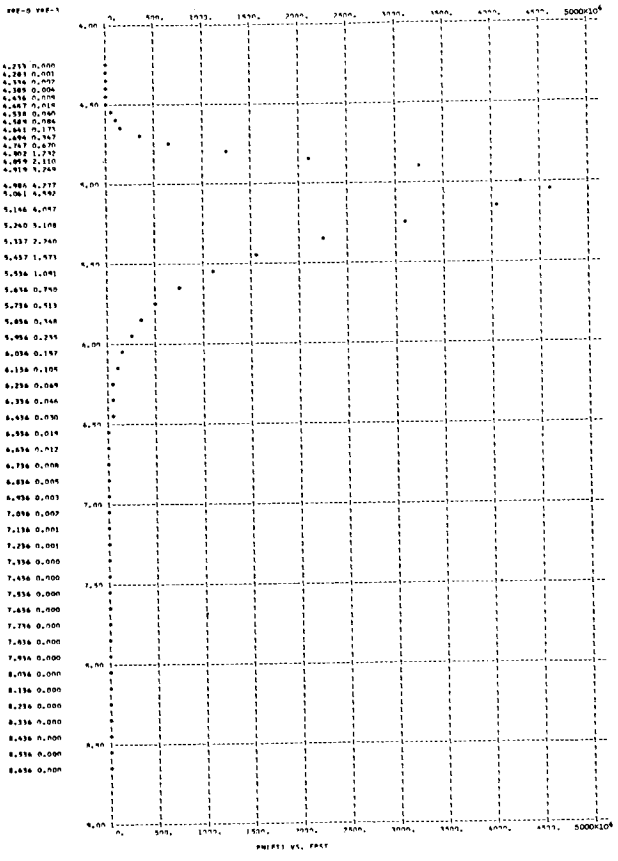
J = 0.538461E-03 KETAV= 0.114873E 01 KETEL= 0.704762E 08 TZERO = 0.888707E 04 TJ = 0.123980E 04

Figure 3. - Continued.







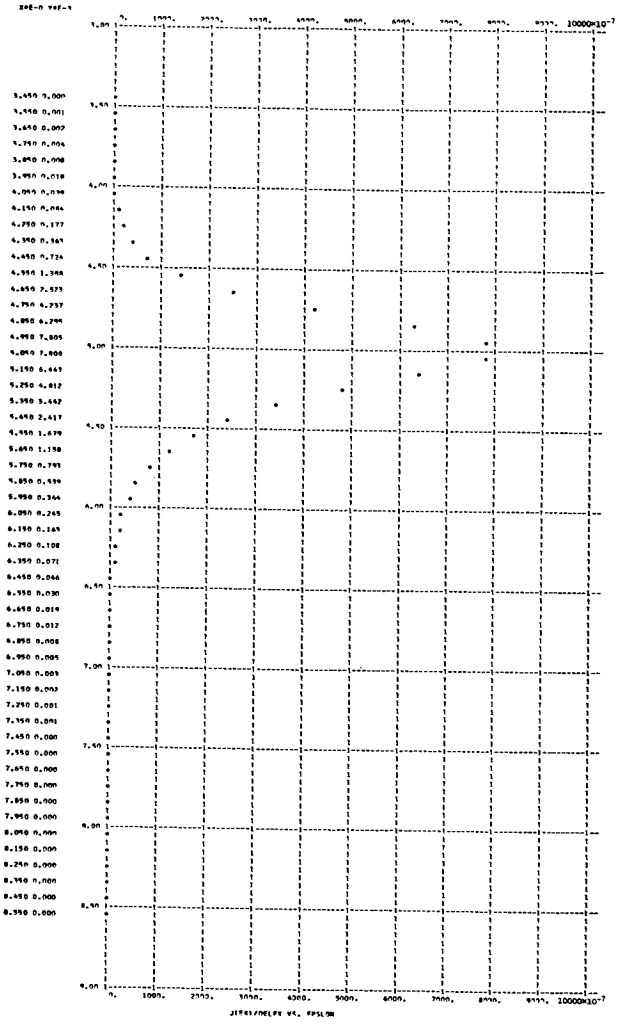


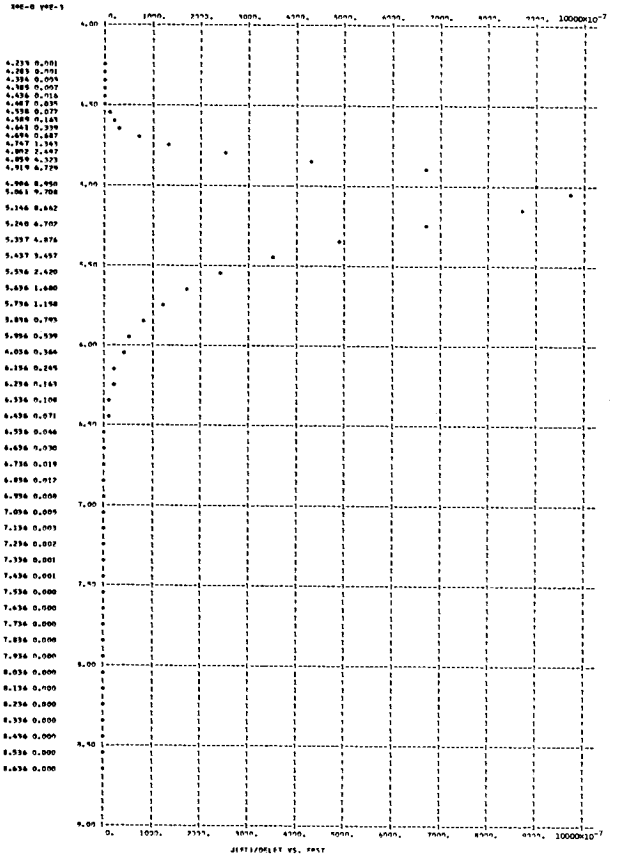
T = 1.000000000E 03 E = 0.315227784E 09 PHI = 6.00 AMJ = 5.00 EVMAX = 9.0559

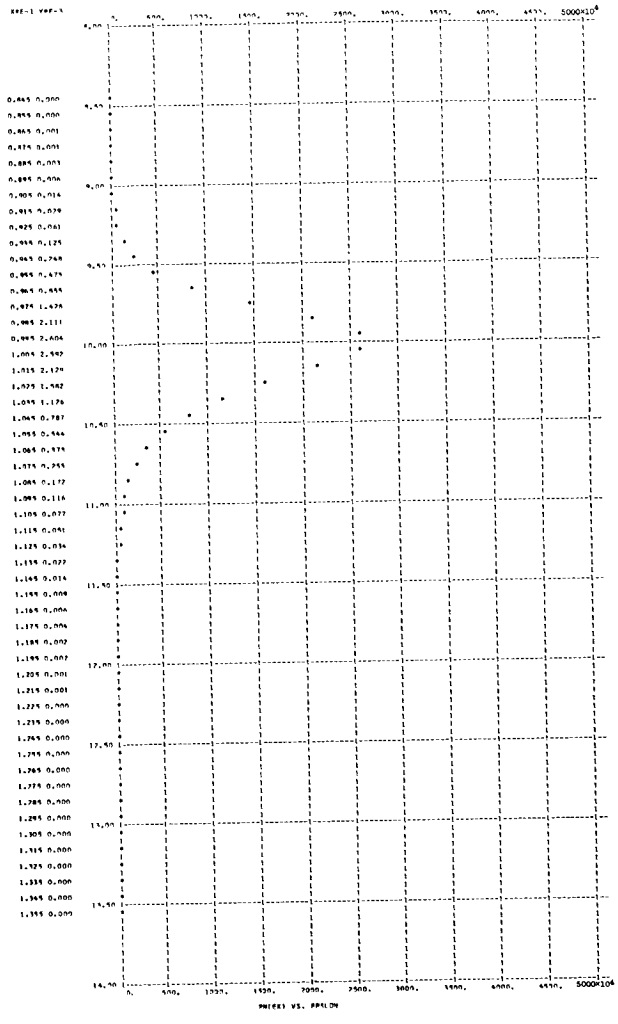
NEM = 0.507805066 23 NEE = 0.251954626 09 VXAV = 0.133386546 09 KEXAV = 0.506356406 01 KEXEL = 0.575483933E 09

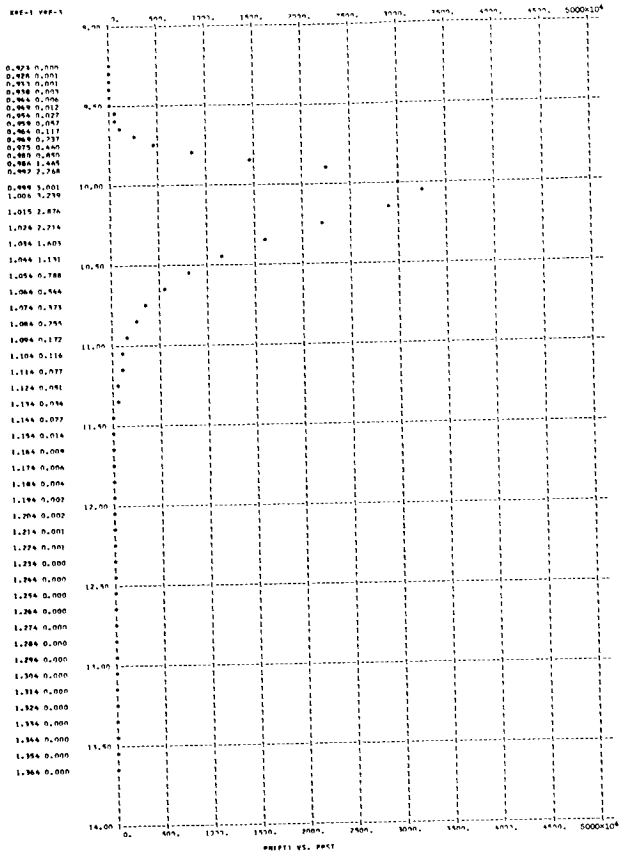
J = 0.538411E-03 KETAV= 0.518574E 01 KETEL= 0.692952E 09 TZERO = 0.401189E 05 TD = 0.985234E 03

Figure 3. - Continued.







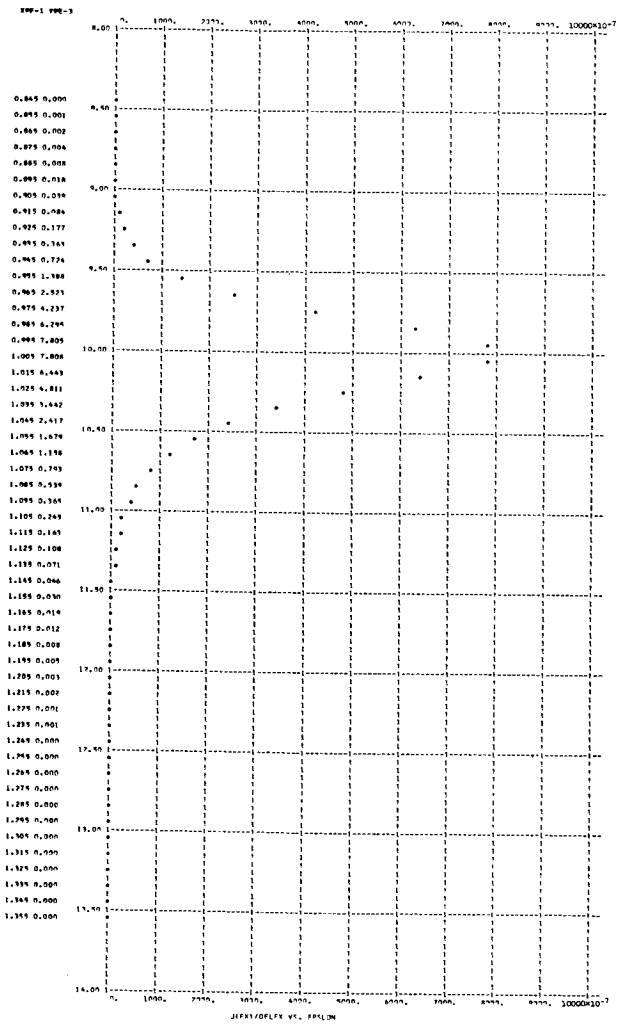


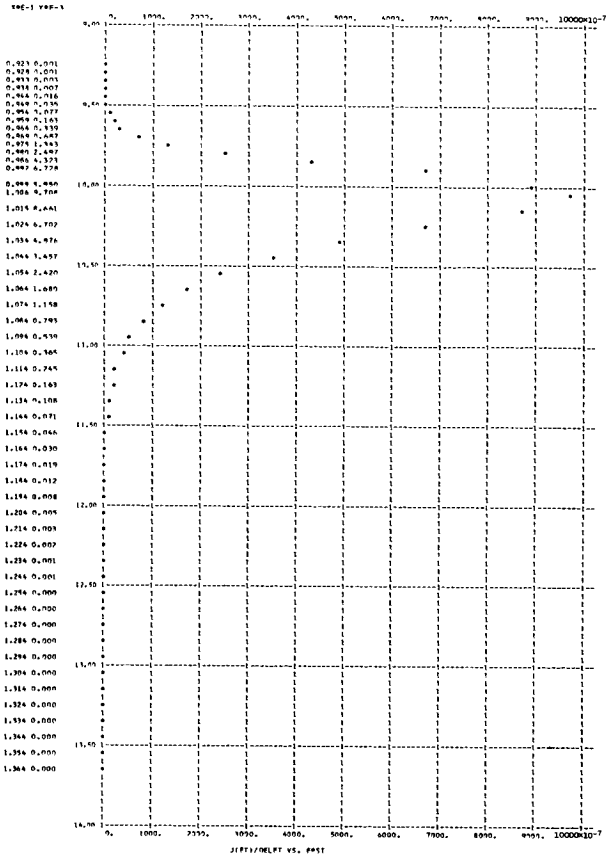
T = 1.00000000E 03 E = 0.31522784E 08 PHI = 6.00 AMU = 10.00 EVMAX = 14.0559

NEM = 0.14367002E 24 NEE = 0.17860423E 08 VXAV = 0.18816559E 09 KEXAV = 0.10068823E 02 KEXFL = 0.18956411E 10

J = 0.538390E-03 KETAV= 0.101903E 02 KETFL= 0.191837E 10 TZERO = 0.788361E 05 TO = 0.960642E 03

Figure 3. - Continued.


0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000X10-7
8.00
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
13.00
13.50
14.00
JEFF1/DELFF VS. EPSLON


0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000X10-7
9.00
9.50
10.00
10.50
11.00
11.50
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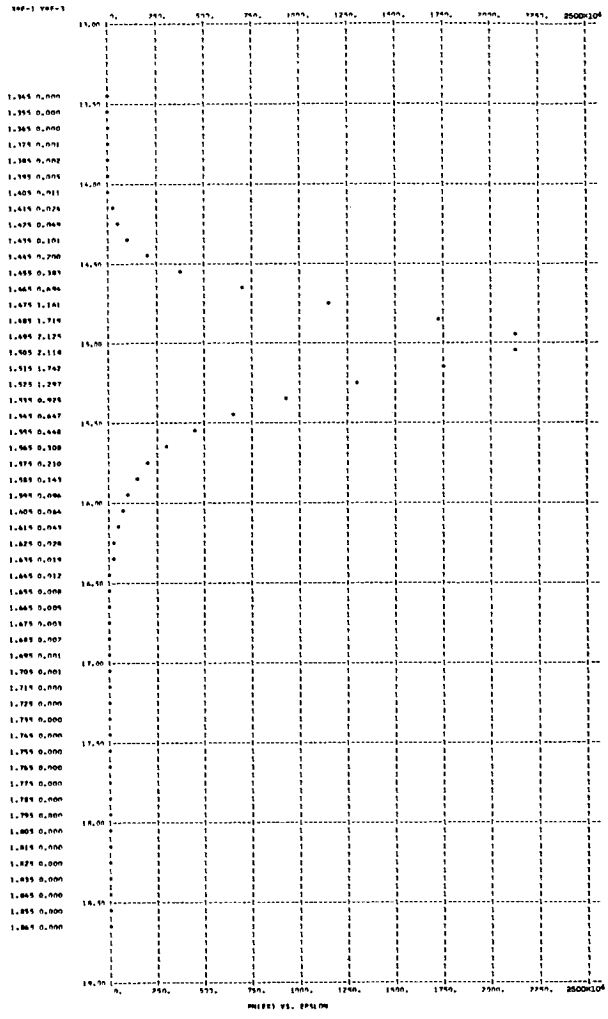
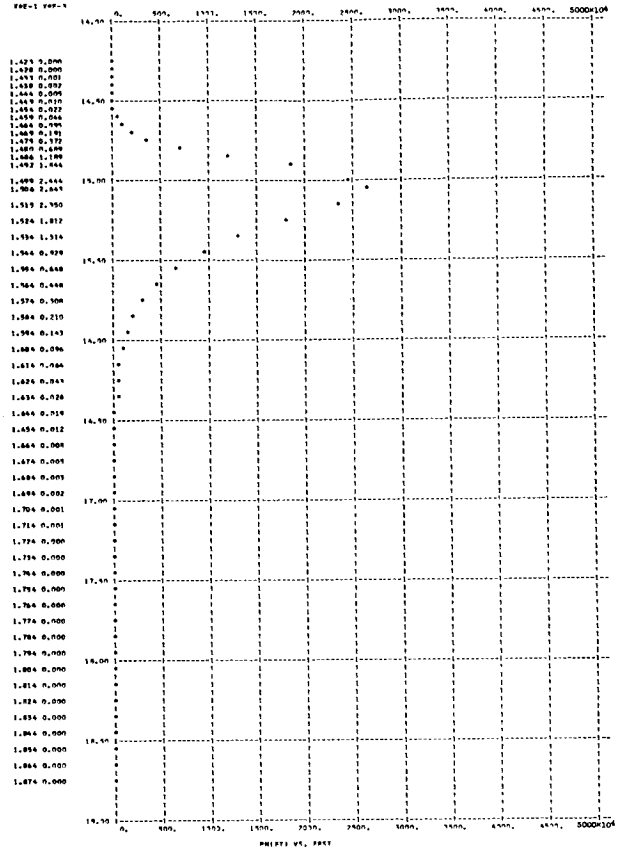
14.00
JEFF1/DELFF VS. PAST



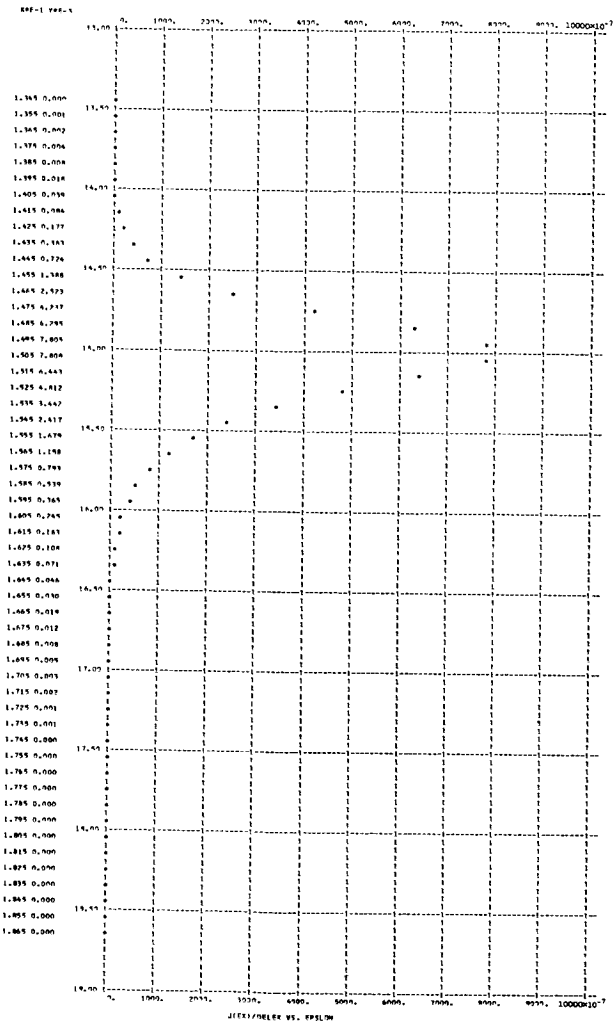


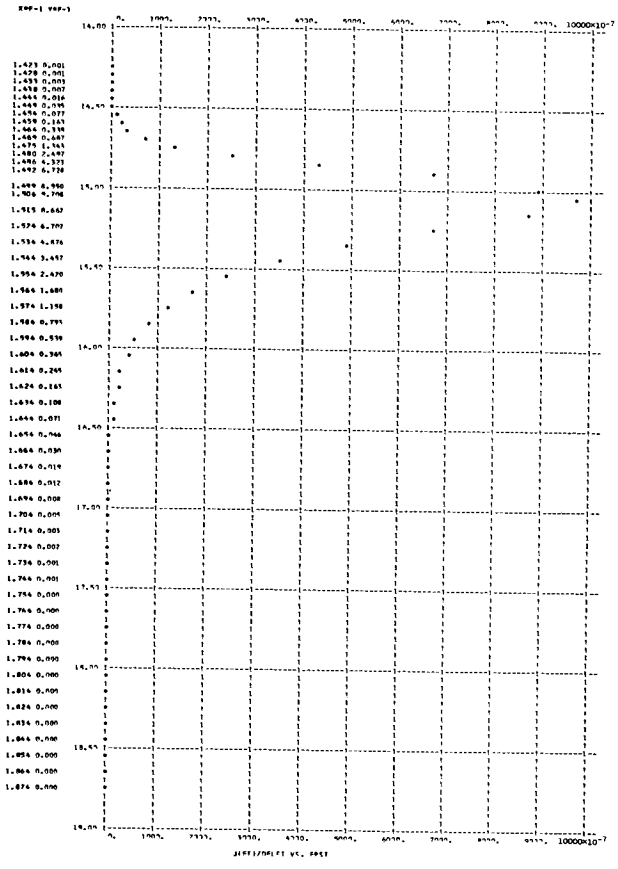
T = 1.00000000E 03 E = 0.31522784E 04 PHI = 6.00 AMU = 15.00 EVMAX = 19.0459

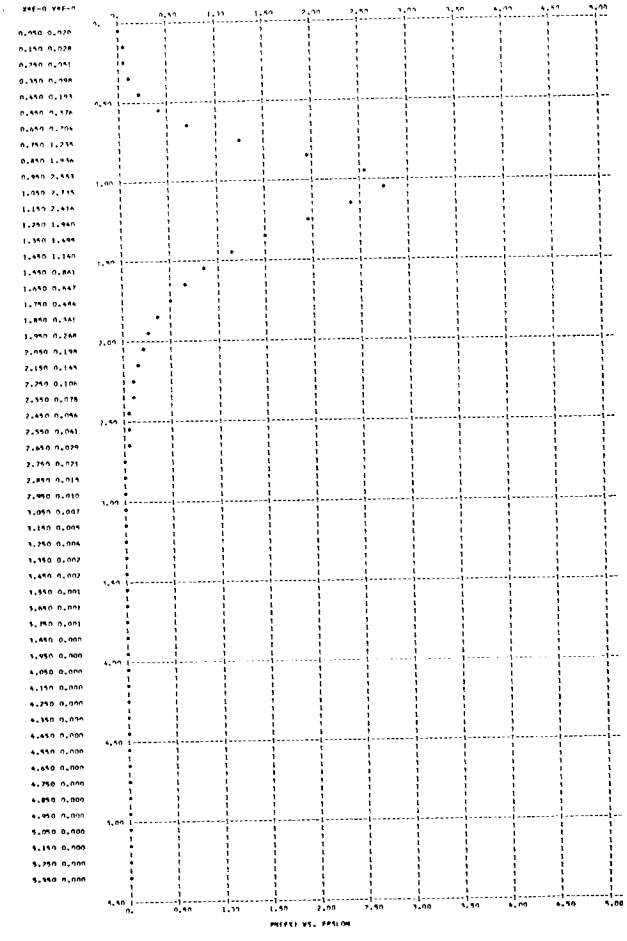
NEM = 0.26396224E 24 NEF = 0.14597902E 08 VXAV = 0.23022412E 09 KEXAV = 0.15070613E 02 KEXEL = 0.34704603E 10

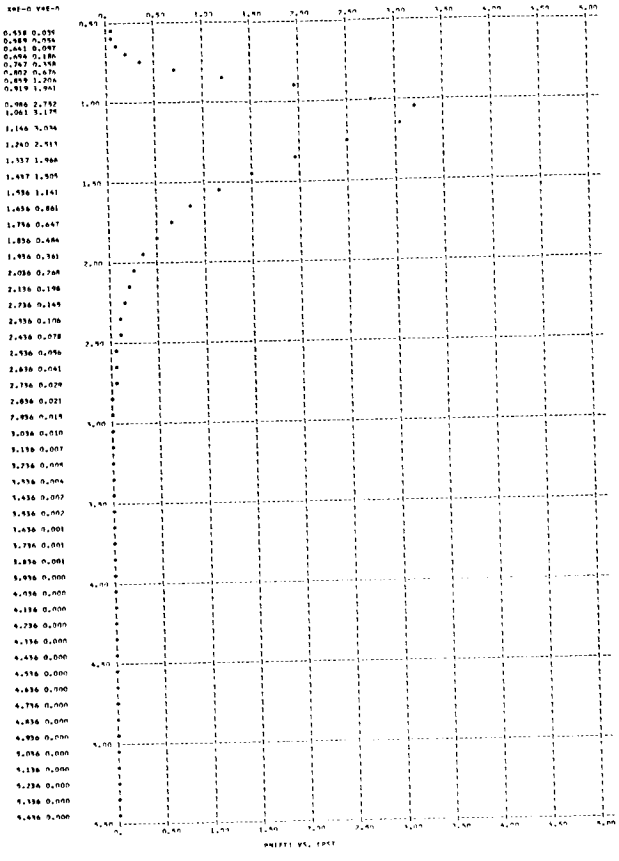
J = 0.538398E-03 KETAV= 0.15191BE 02 KETEL= 0.349827E 10 TZERO = 0.117530E 06 TO = 0.951994E 03

Figure 3. - Continued.







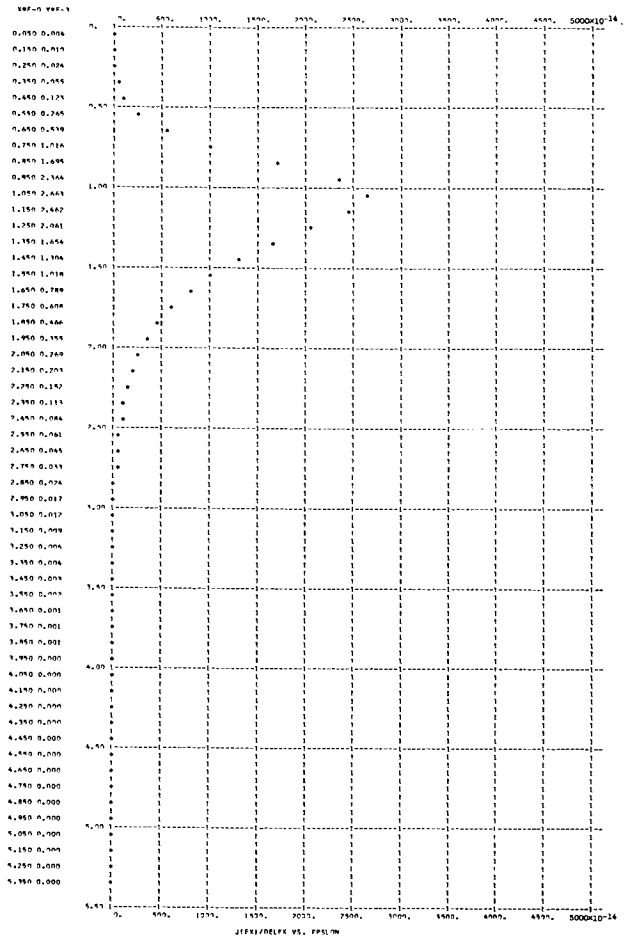


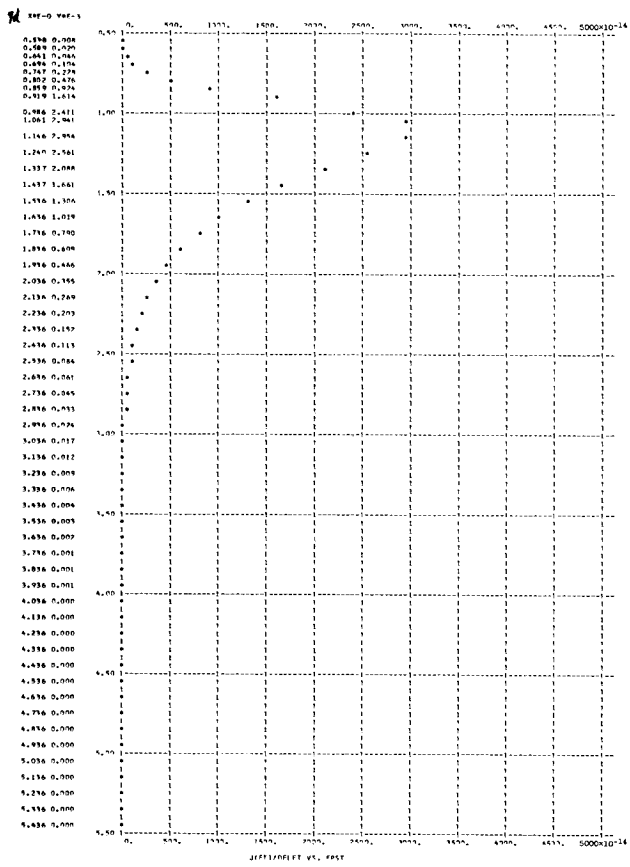
T = 1.00000000E 03 E = 0.31522784E 08 PHI = 8.00 AMU = 1.00 FVMAX = 7.0085

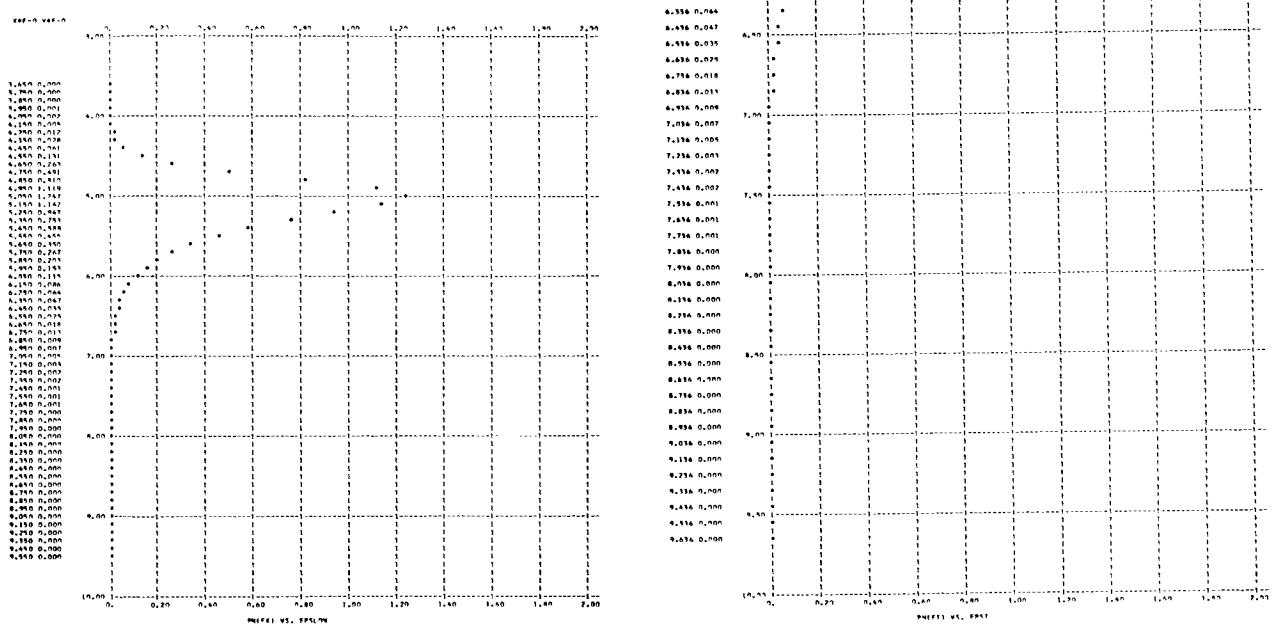
NFM = 0.45427783E 22 NEE = 0.20280402E 01 VXAV = 0.63175455E 08 KEXAV = 0.11666266E 01 KEXEL = 0.77733027E 08

J = 0.205252E-10 KETAV= 0.127939E 01 KETEL= 0.845550E 08 TZERO = 0.990254E 04 TO = 0.112419E 04

Figure 3. - Continued.





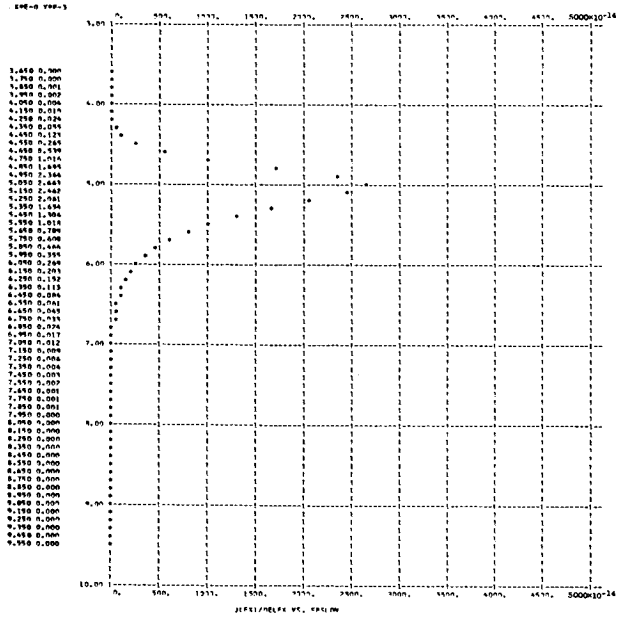


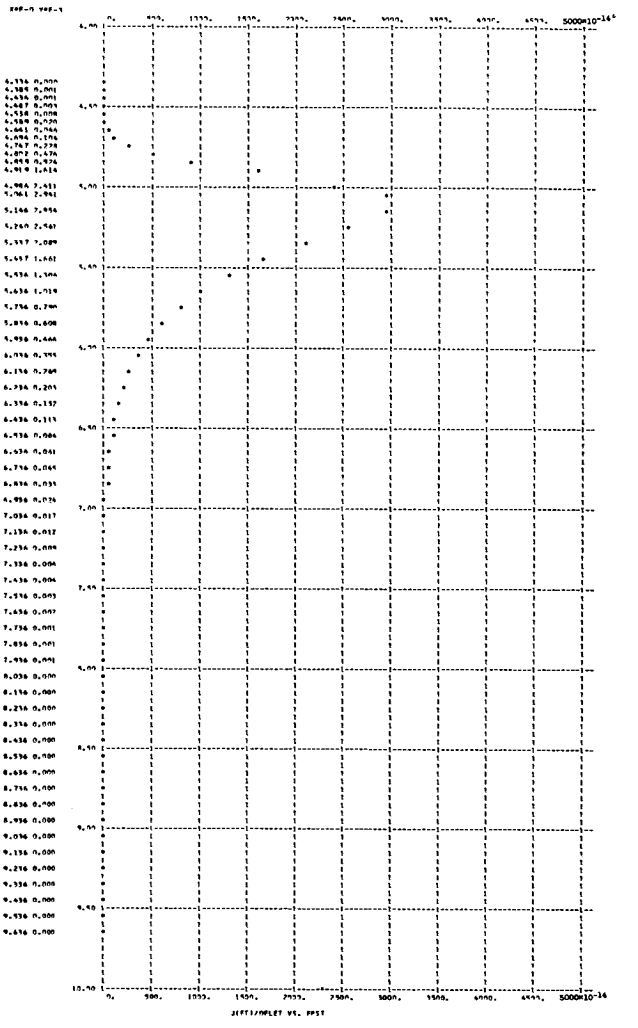
T = 1.000000000E 03 E = 0.315227846E 09 PHI = 8.00 AMU = 5.00 EVMAX = 11.0085

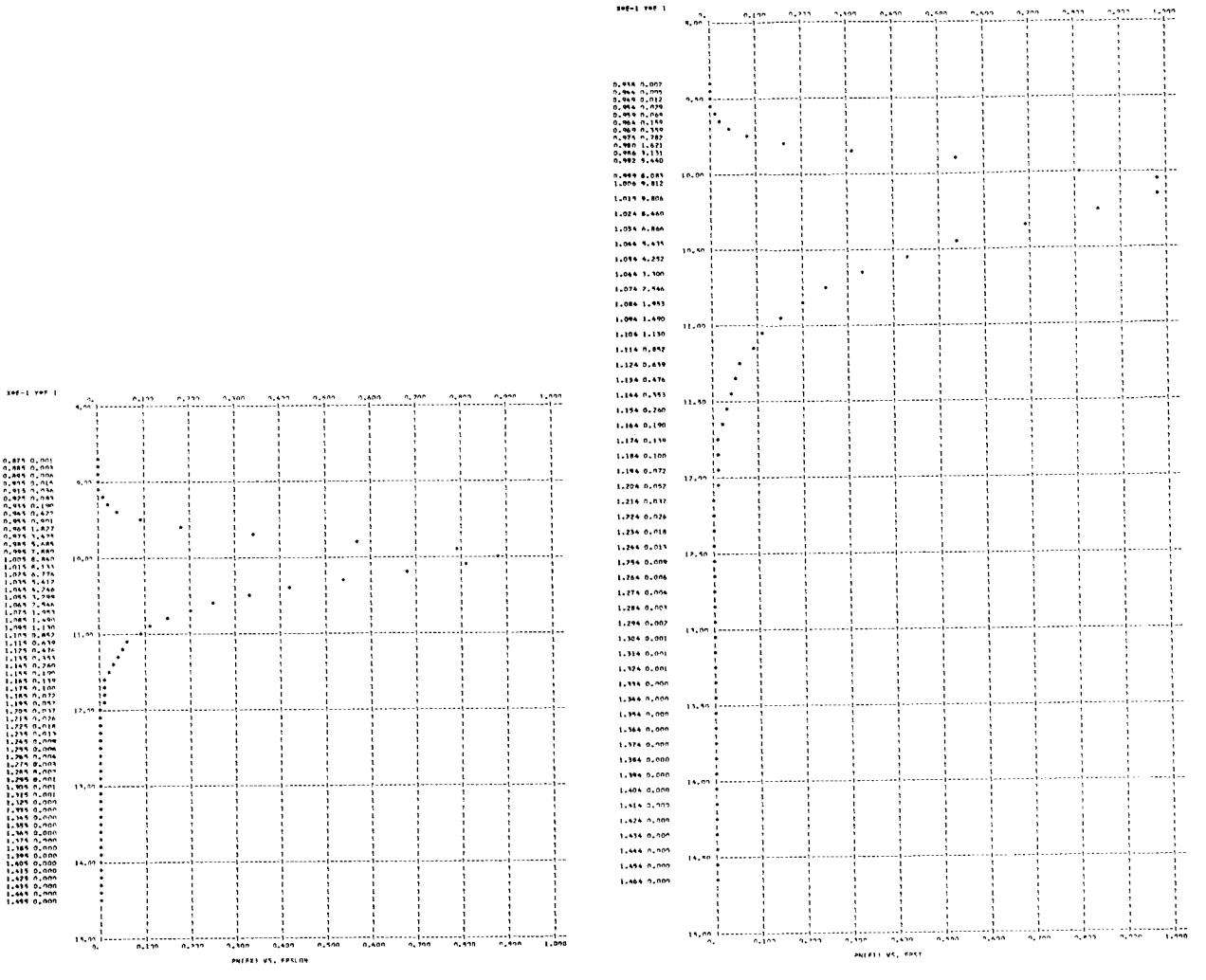
NEM = 0.507805045E 23 NEE = 0.945380038E 23 VXAV = 0.135356018E 09 KEXAV = 0.521518985E 01 KEXEL = 0.778026508E 09

J = 0.205213E-10 KETAV= 0.532429E 01 KETEL= 0.722589E 09 TZERO = 0.411908E 05 TO = 0.883989E 03

Figure 3. - Continued.





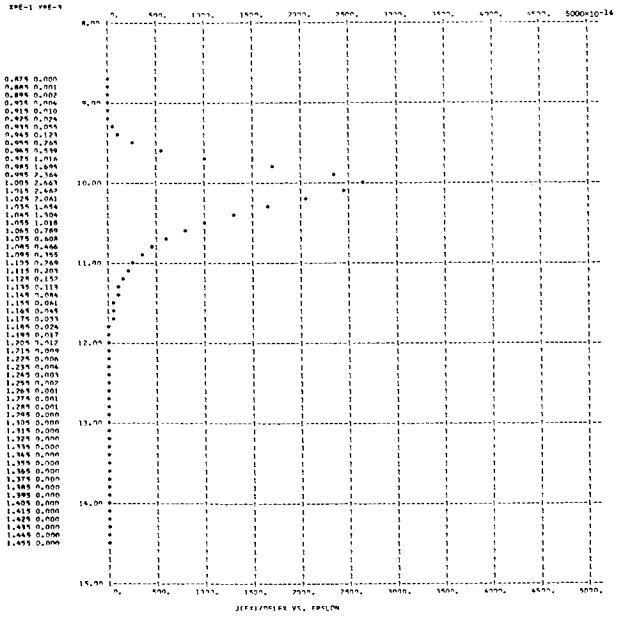


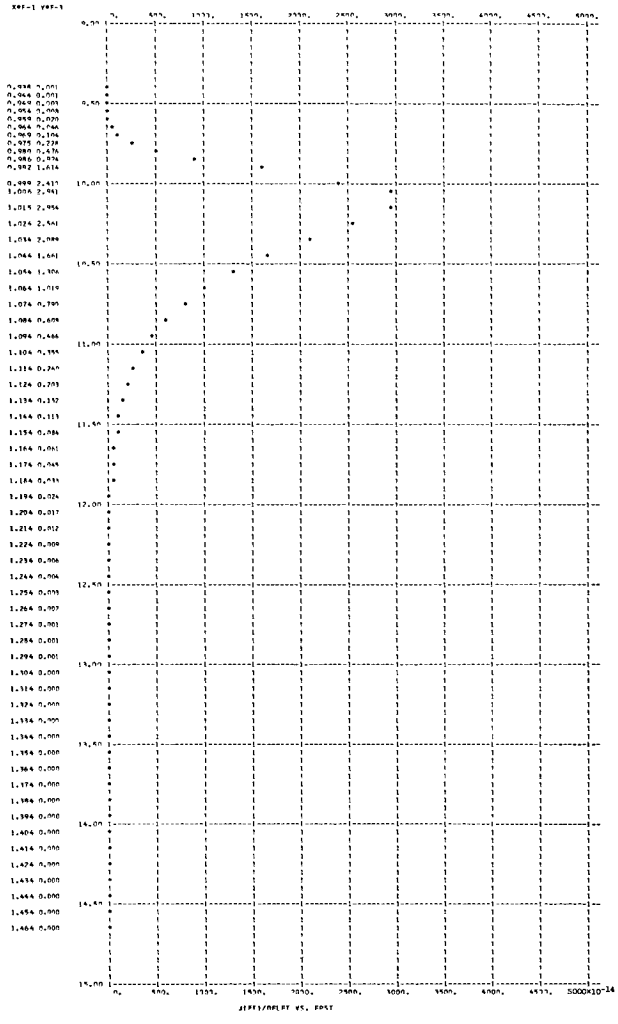
T = 1.000000000E 03 E = 0.315227846E 03 PHI = 8.00 AMJ = 10.00 EVMAX = 16.0095

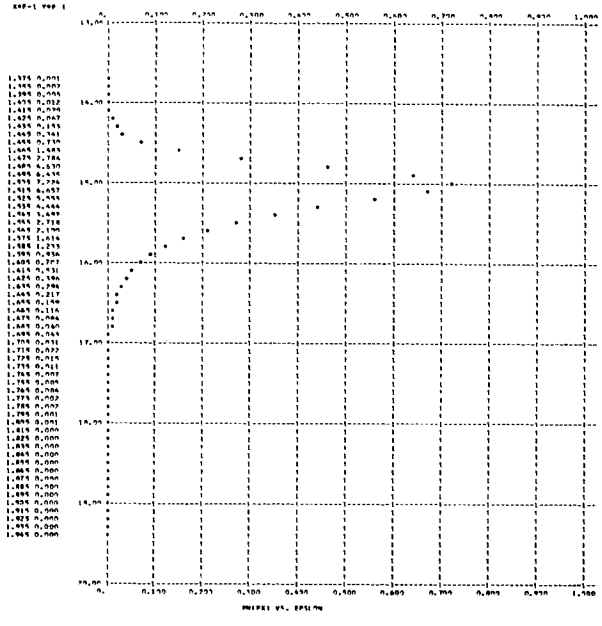
NEM = 0.143670092E 24 NEE = 0.475612588E 00 VXAV = 0.189595000E 00 KEXAV = 0.102234446E 02 KEXEL = 0.193281702E 10

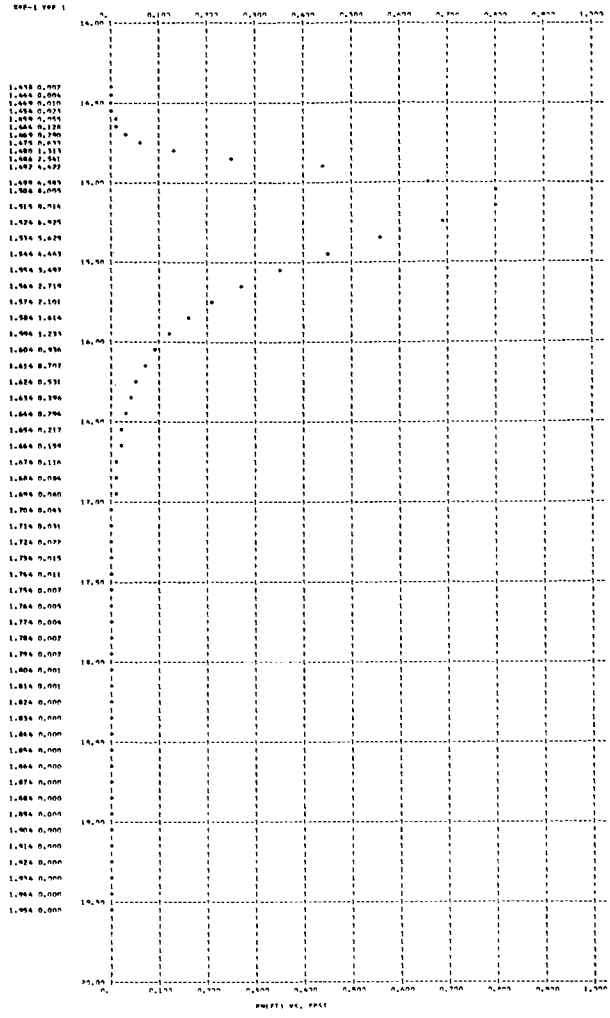
J = 0.205205E-10 KETAV= 0.103310E 02 KETEL= 0.196012E 10 TZERO = 0.799250E 05 TJ = 0.862654E 03

Figure 3. Continued.







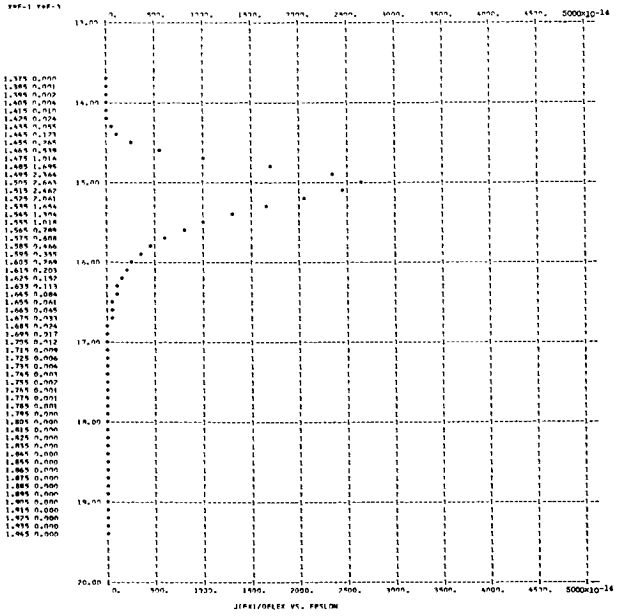


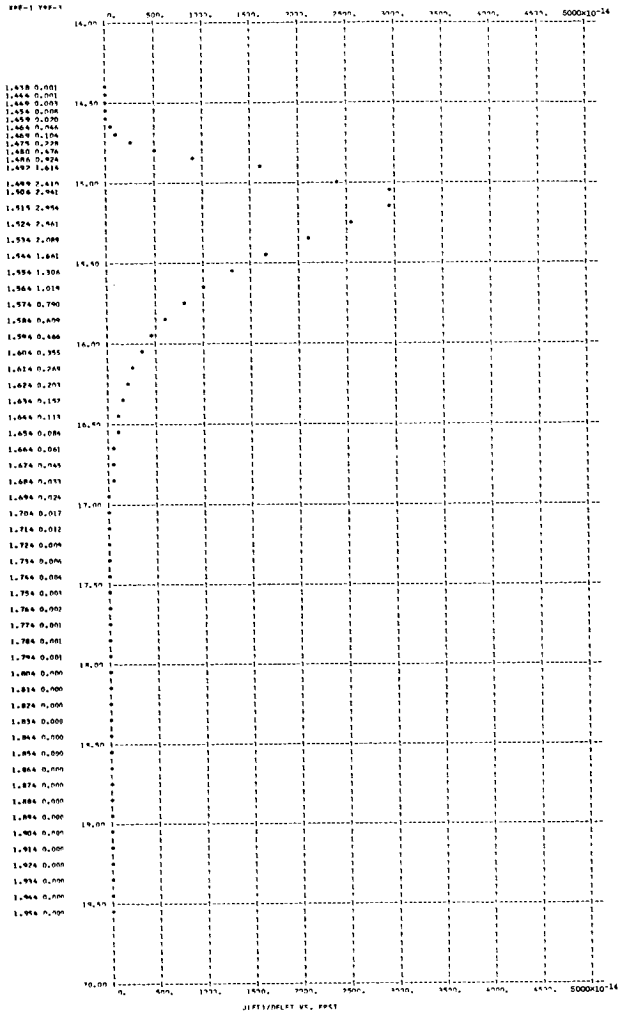
T = 1.000000000E 03 E = -0.315227846E 29 PHI = 8.00 AMU = 15.00 EVMAX = 21.0085

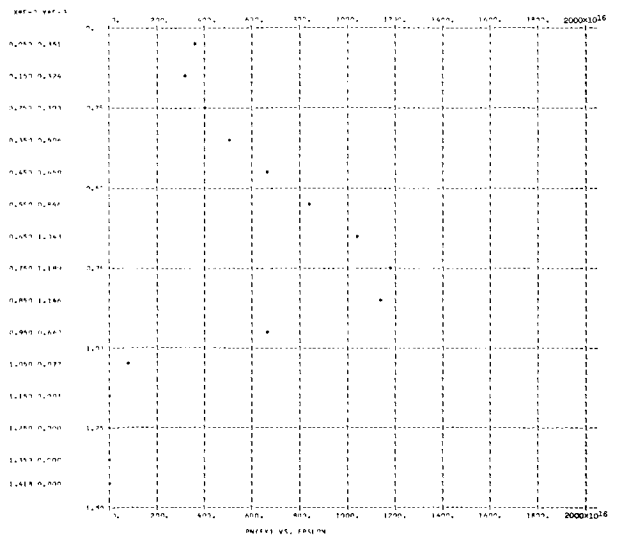
NEM = 0.26396224E 24 NEE = 0.55355146E 23 VXAV = 0.23143173E 09 KEXAV = 0.15226207E 02 KEXEL = 0.35345442E 10

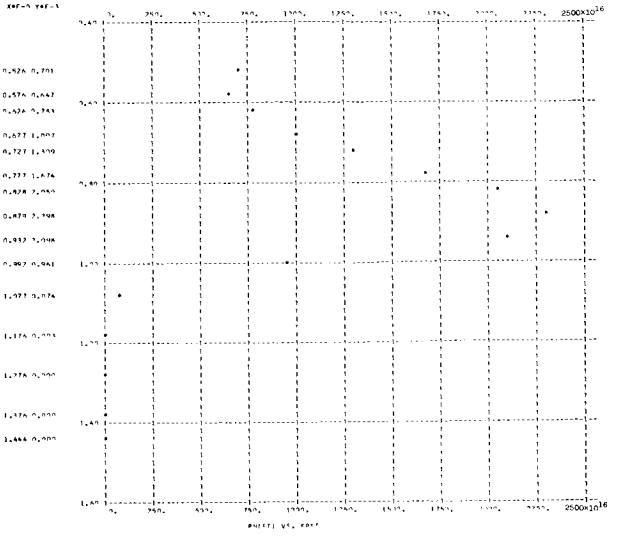
J = 0.295205E-10 KETAV= 0.153336E 02 KETEL= 0.354934E 10 TZERO = 0.118625E 06 TO = 0.951573E 03

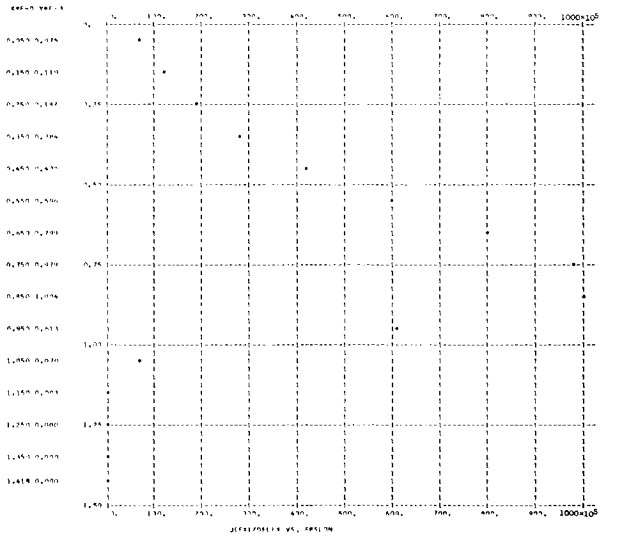
Figure 3. - Continued.

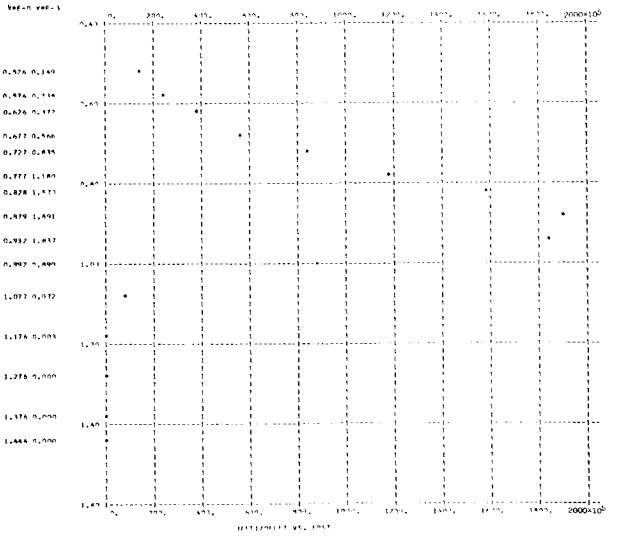










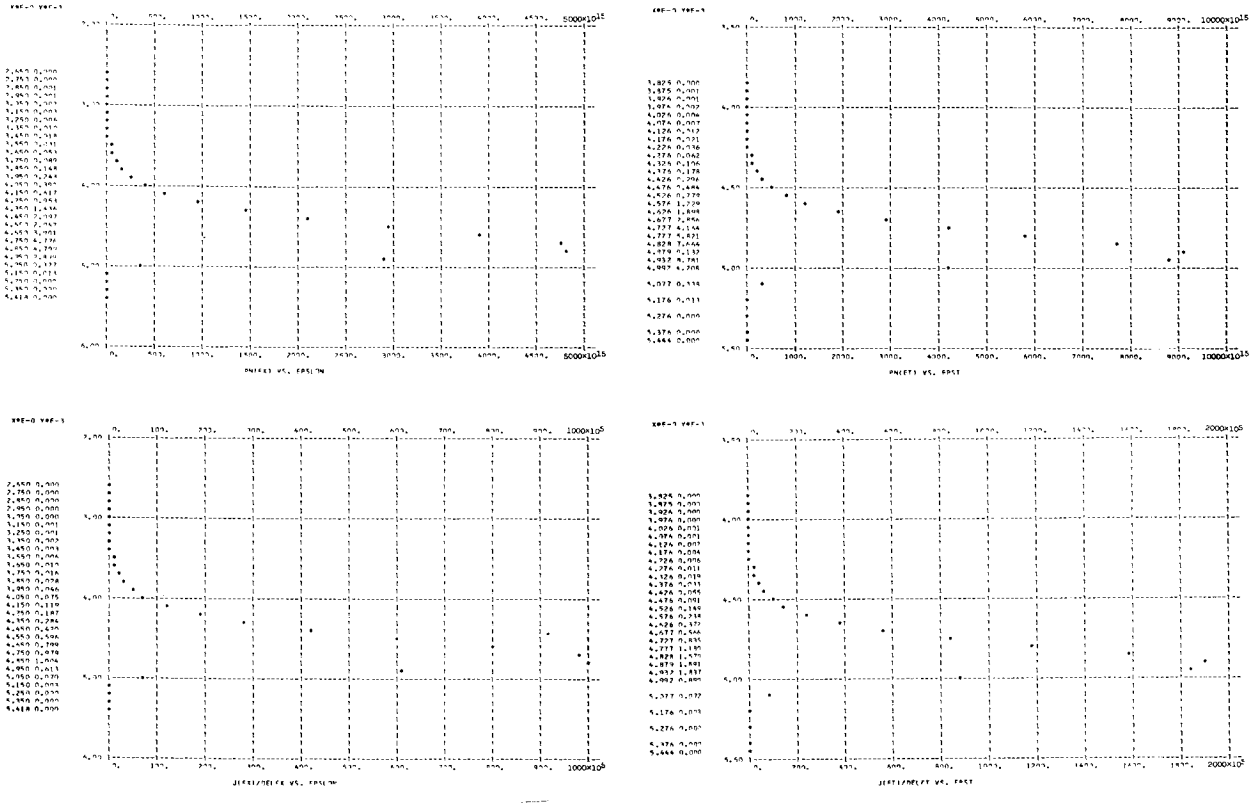


T = 0.30000000E 03 E = 0.31522784E 08 PHI = 2.00 AMU = 1.00 EVMAX = 1.4353

NEM = 0.45046996E 22 NEE = 0.73533504E 19 VXAV = 0.44028216E 08 KEXAV = 0.59388266E 00 KEXEL = 0.29328905E 08

J = 0.518655E 08 KETAV= 0.802114E 00 KETEL= 0.369492E 08 TZERO = 0.6205488E 04 TD = 0.194186E 04

Figure 3. - Continued.

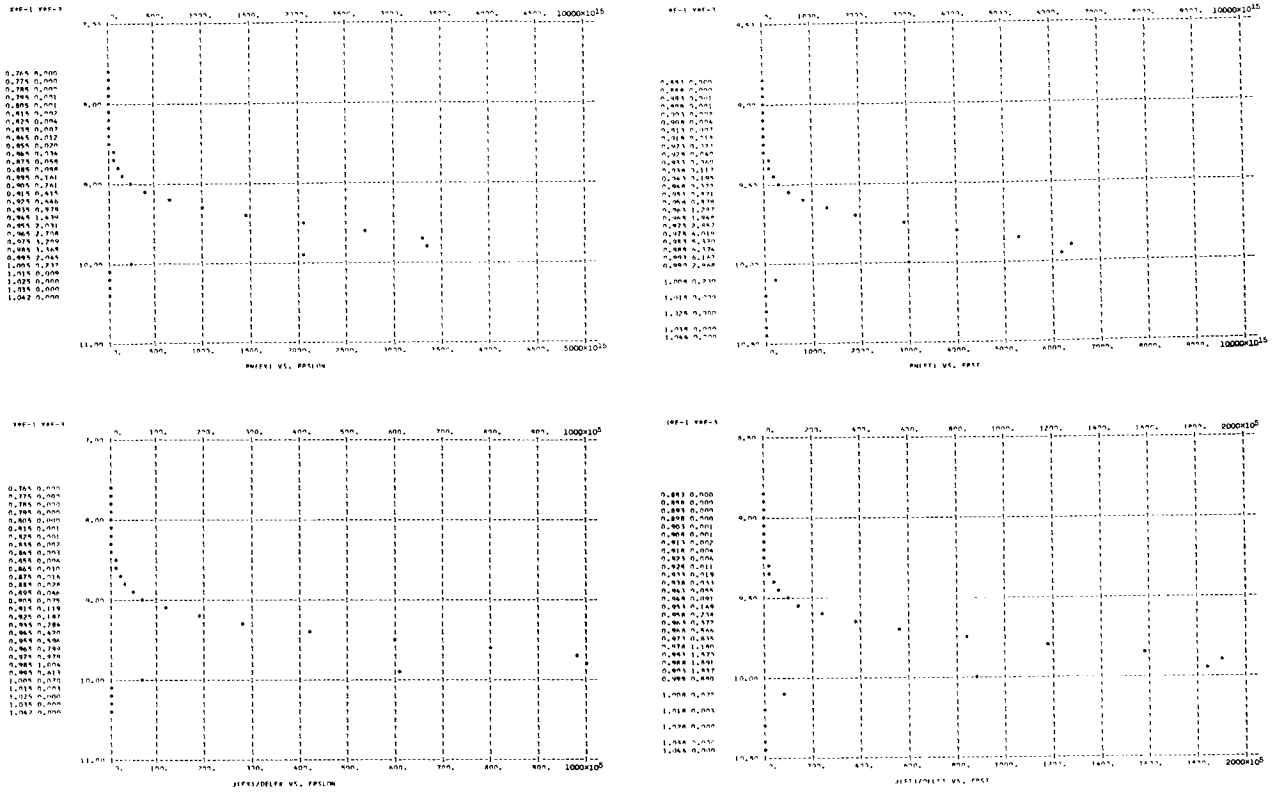


T = 0.30000000E 03 E = 0.31522784E 08 PHI = 2.00 AMU = 5.00 EVMAX = 5.4353

NEM = 0.50763609E 23 NEE = 0.25705938E 19 VXAV = 0.12776489E 09 KEXAV = 0.46445631E 01 KEXFL = 0.59433689E 09

J = 0.526147E 08 KETAV= 0.482823E 01 KETFL= 0.617356E 09 TZERO = 0.373532E 05 TD = 0.14494RE 04

Figure 3. - Continued.

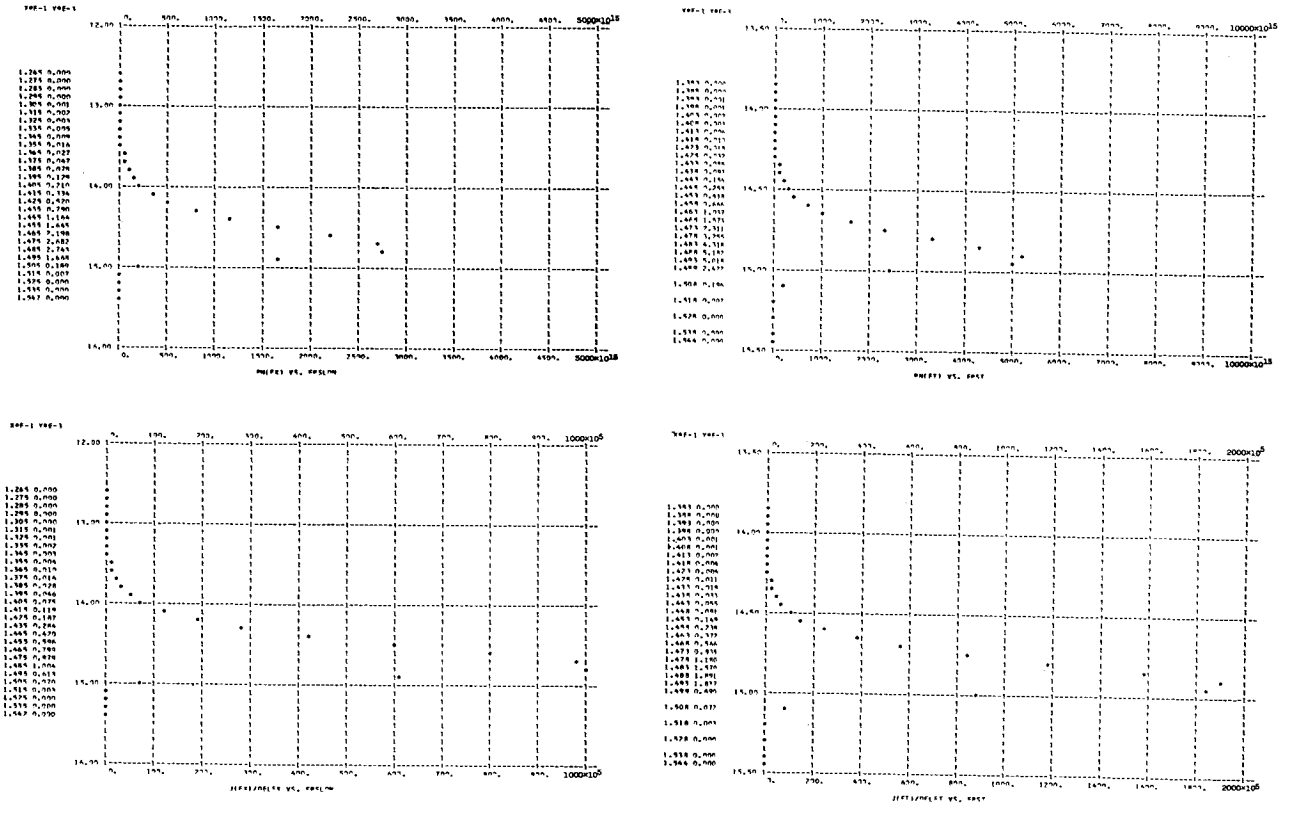


T = 0.30000000E 03 F = 0.31522784E 08 PHI = 2.00 AMU = 10.00 EVMAX = 10.4353

NEM = 0.14365808E 24 NEE = 0.17829555E 19 VXAV = 0.18420501E 09 KEXAV = 0.96484231E 01 KEXEL = 0.17779102E 10

J = 0.526144E 08 KETAV= 0.983022E 01 KETEL= 0.181110E 10 TZERO = 0.760506E 05 TD = 0.141966E 04

Figure 3. - Continued.

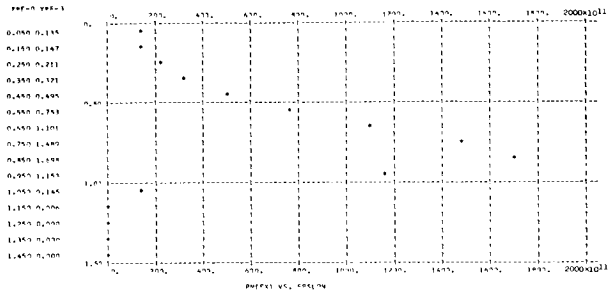


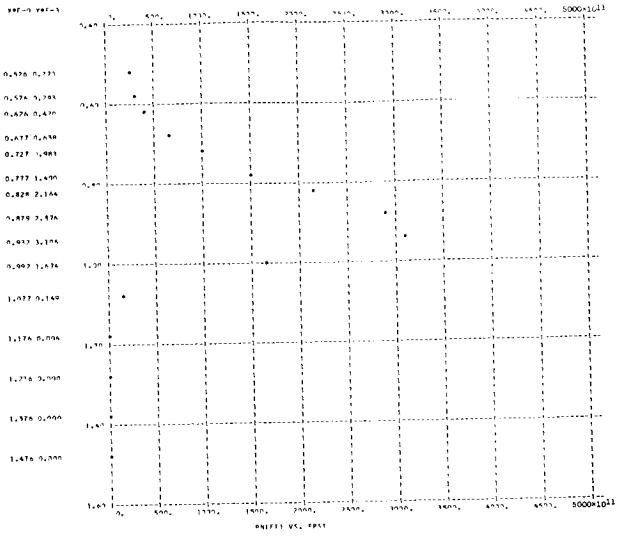
T = 0.30000000E 03 F = 0.31622784E 08 PHI = 2.00 AMU = 15.00 EVMAX = 15.4353

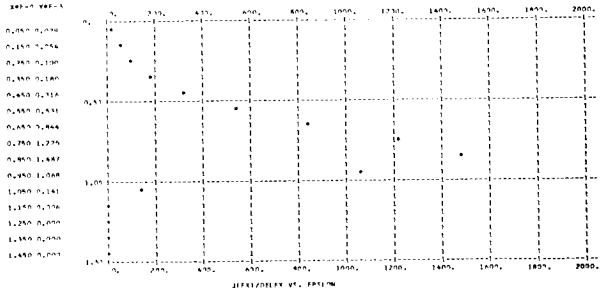
NEM = 0.26395249E 24 NEE = 0.14468759E 19 VXAV = 0.22699066E 09 KEXAV = 0.14649596E 02 KEXEL = 0.33258222E 10

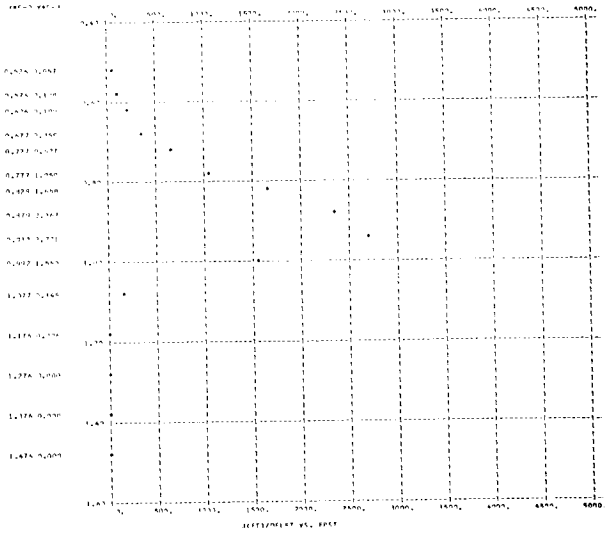
J = 0.526141E 08 KETAV= 0.148308E 02 KETEL= 0.336672E 10 TZERO = 0.114737E 06 TD = 0.141068E 04

Figure 3. - Continued.







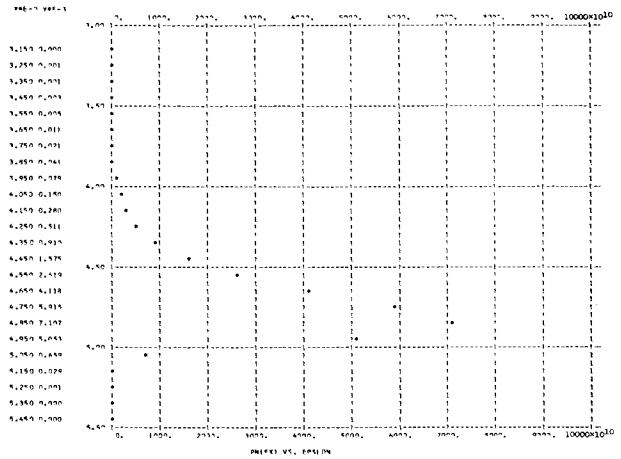


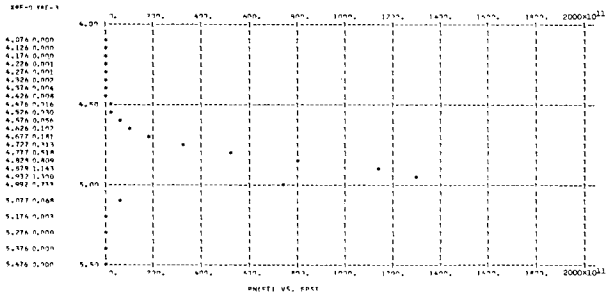
T = 0.30000000E 03 E = 0.31522784E 08 PHI = 4.00 AMU = 1.00 FVMAX = 3.1508

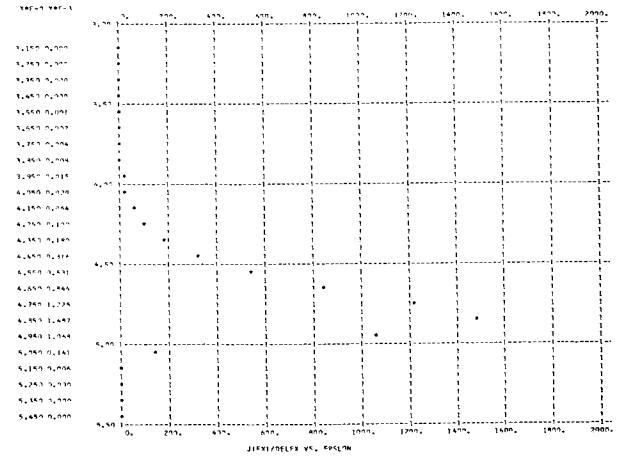
NEM = 0.45046996E 22 NEE = 0.77187270E 14 VXAV = 0.48503523E 08 KEXAV = 0.69542485E 00 KEXEL = 0.35874714E 08

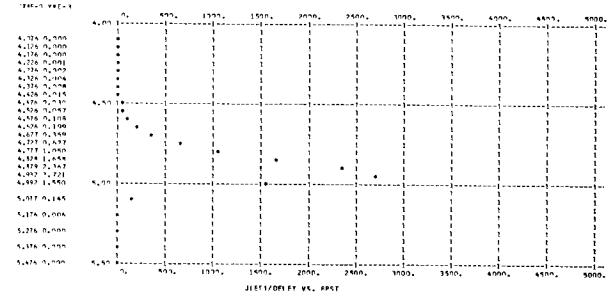
J = 0.599765E 03 KETAV= 0.854763E 00 KETEL= 0.425746E 08 TZERO = 0.661279E 04 TD = 0.143836E 04

Figure 3. - Continued.







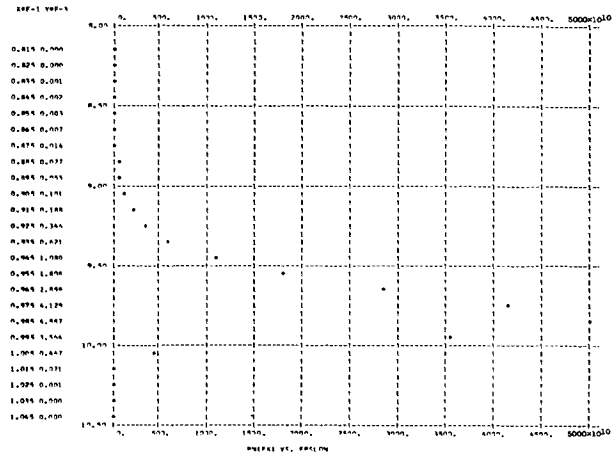


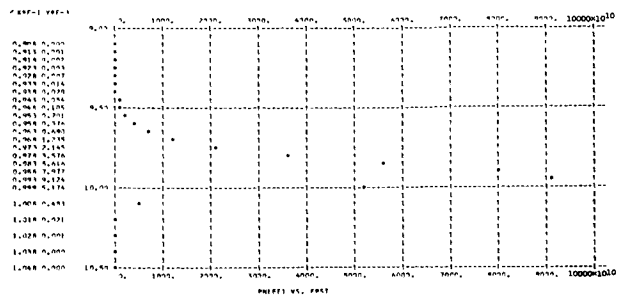
T = 0.30000000E 03 E = 0.31522784E 08 PHI = 4.00 AMU = 5.00 EVMAX = 7.1508

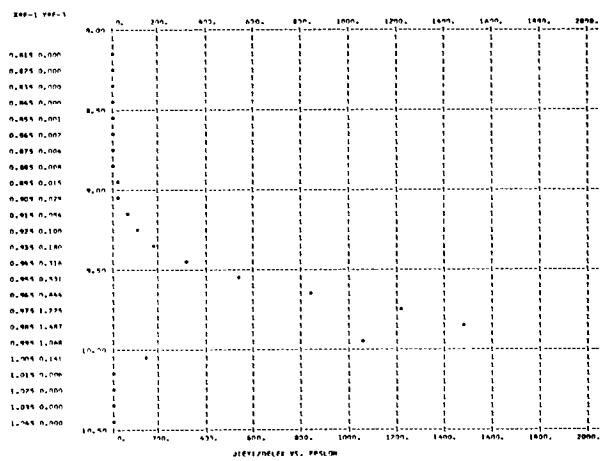
NEM = 0.50763609E 23 NEE = 0.29790330E 14 VXAV = 0.12898587E 09 KEXAV = 0.47322430E 01 KEXEL = 0.61096300E 09

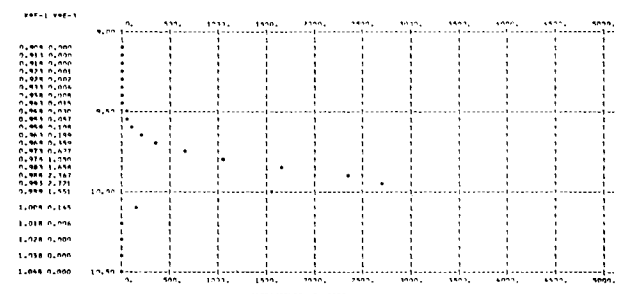
J = 0.601109E 03 KETAV= 0.487393E 01 KETEL= 0.628969E 09 TZERO = 0.377067E 05 TO = 0.1113515E 04

Figure 3. - Continued.







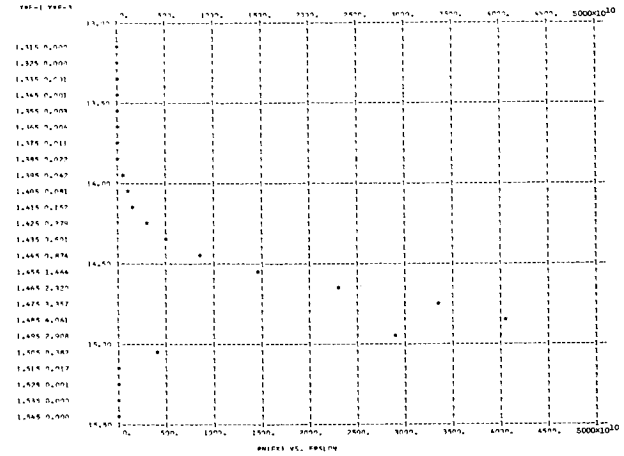


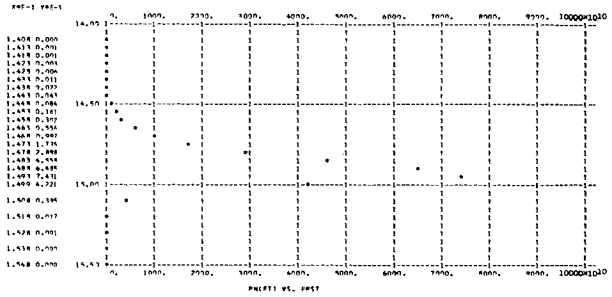
T = 0.30000000E 03 E = 0.31522784E 09 PHI = 4.00 AMU = 10.00 FVMAX = 12.1508

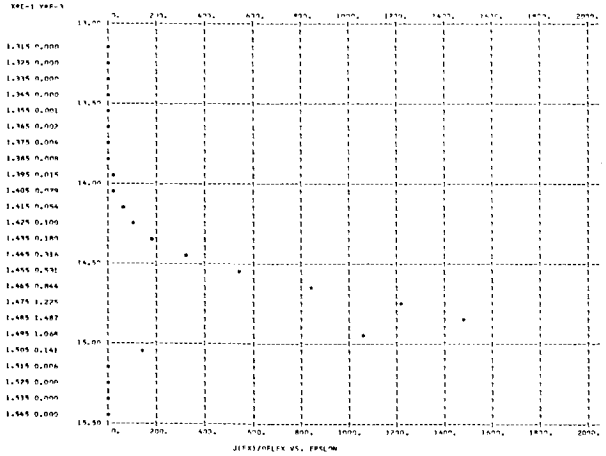
NEM = 0.14365808E 24 NEE = 0.20278905E 14 VXAV = 0.18503177E 09 KEXAV = 0.97345661E 01 KEXFL = 0.18015928E 10

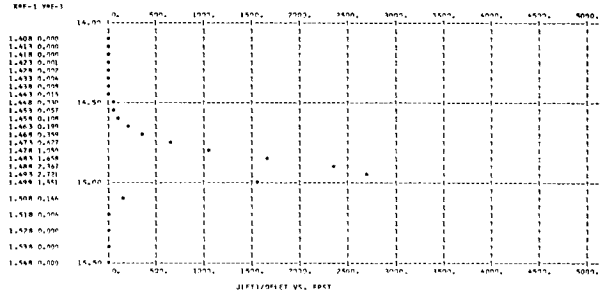
J = 0.601109E 03 KETAV= 0.987515E 01 KETFL= 0.182742E 10 TZERO = 0.763982E 05 TO = 0.109582E 04

Figure 3. - Continued.







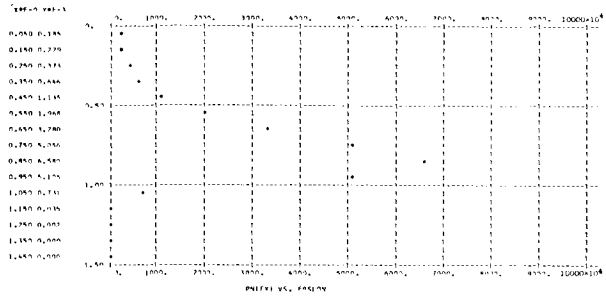


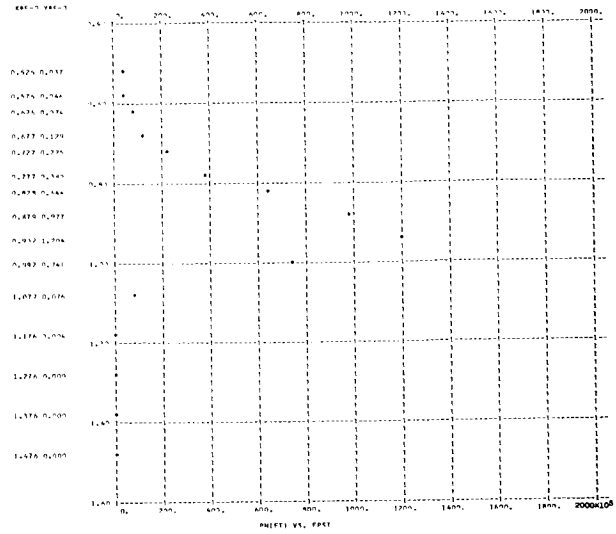
T = 0.30000000E 03 E = 0.31522784E 08 PHI = 4.00 AMU = 15.00 EVMAX = 17.1508

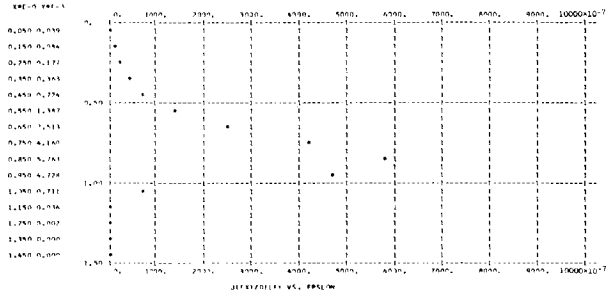
NEM = 0.26395249E 24 NEE = 0.16481677E 14 VXAV = 0.22765683E 09 KEXAV = 0.14735286E 02 KEXEL = 0.33549024E 10

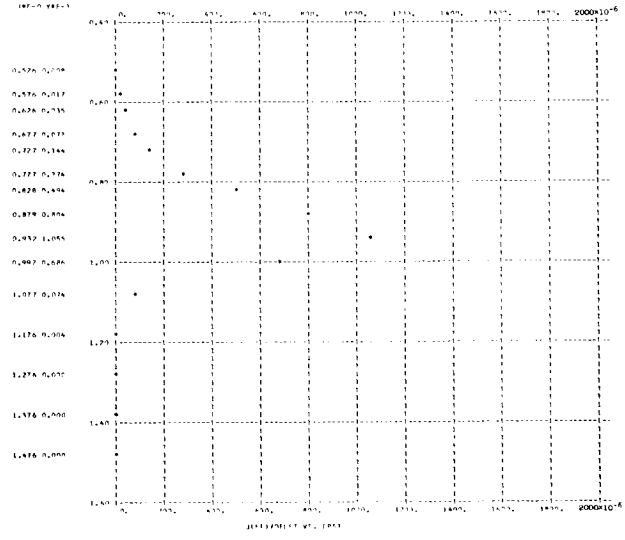
J = 0.6010976E 03 KETAV= 0.1487556E 02 KETEL= 0.3386688E 10 TZERO = 0.1150836E 06 TD = 0.1090366E 04

Figure 3. - Continued.







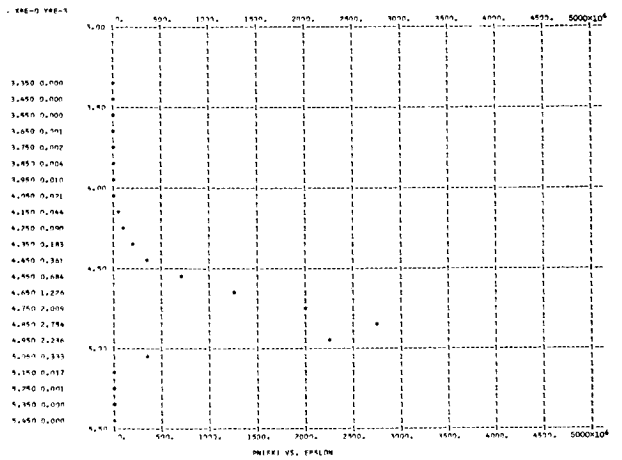


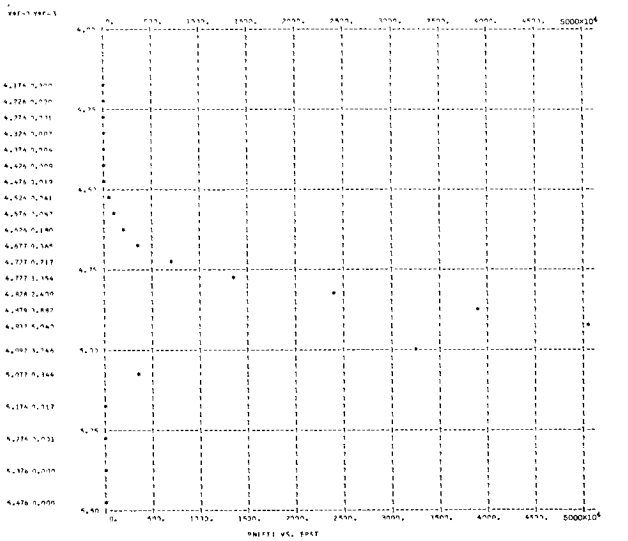
T = 0.30000000E 03 E = 0.31522784E 08 PHI = 6.00 AMU = 1.00 EVMAX = 5.0559

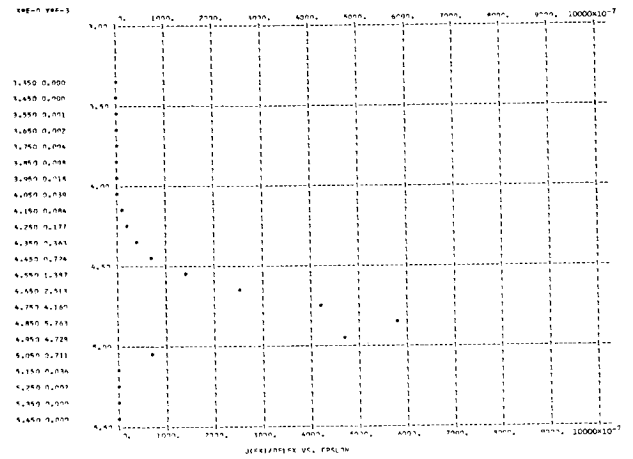
NEM = 0.45046996E 22 NEE = 0.25423145E 08 VXAV = 0.50869304E 08 KEXAV = 0.75318787E 00 KEXEL = 0.39821047E 08

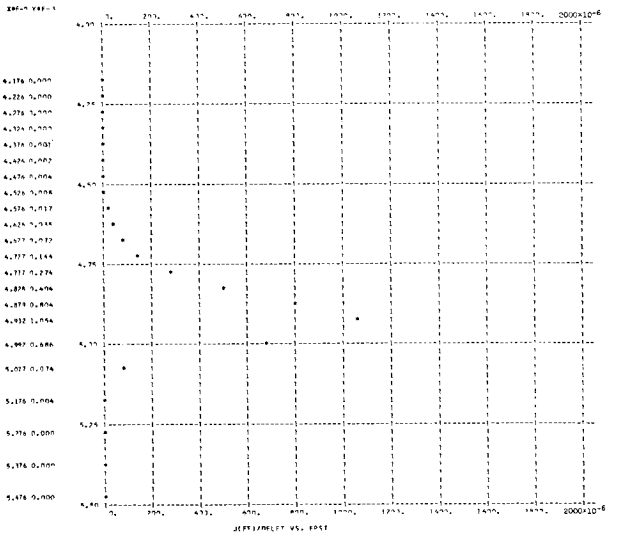
J = 0.207180E-03 KETAV= 0.885213E 00 KETEL= 0.458264E 08 TZERO = 0.684836E 04 TO = 0.115685E 04

Figure 3. - Continued.







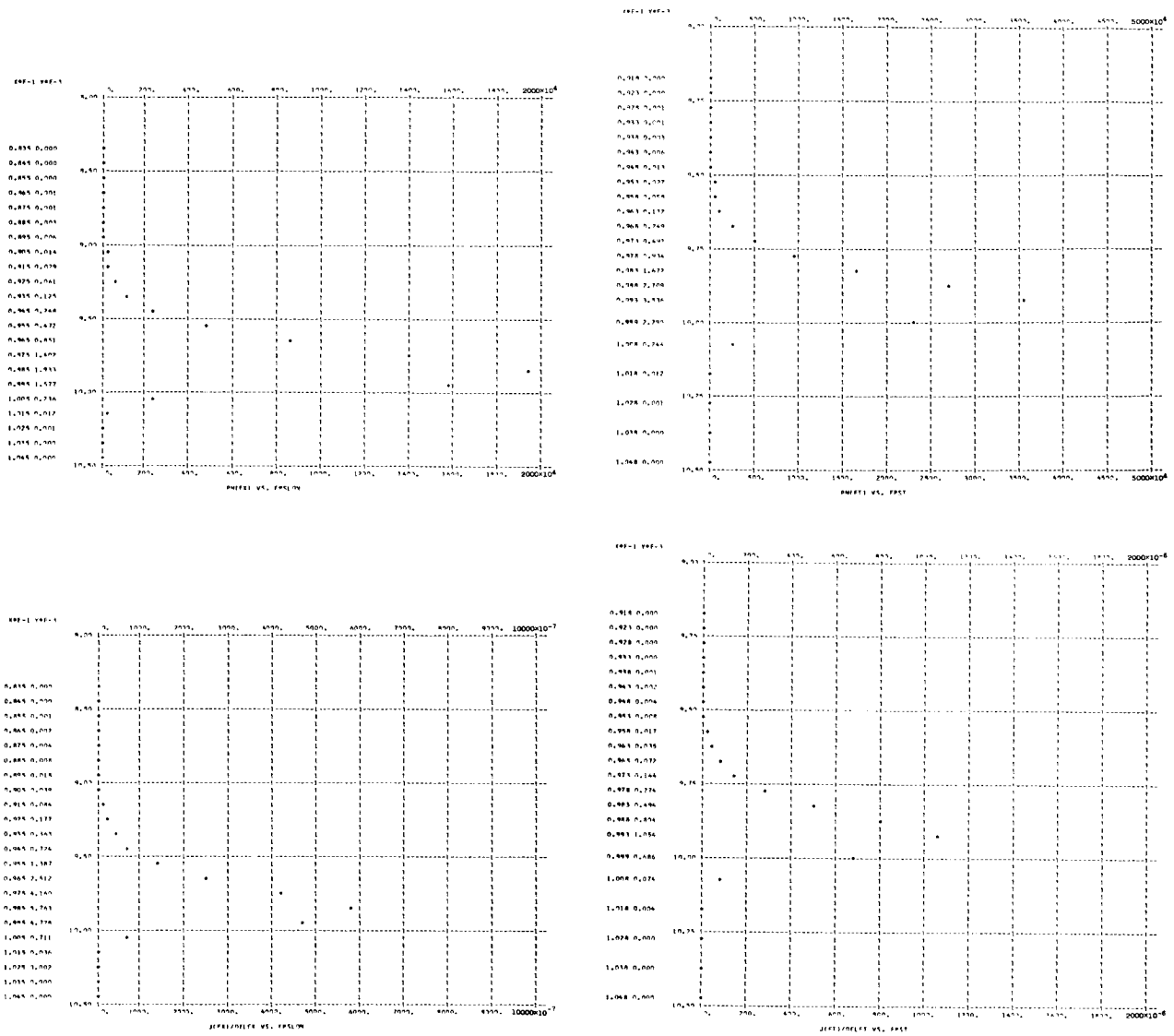


T = 0.30000000E 03 E = 0.31522784E 08 PHI = 6.00 AMU = 5.00 EVMAX = 9.0559

NEM = 0.50763609E 23 NEE = 0.99778702E 07 VXAV = 0.12962740E 09 KEXAV = 0.47788067E 01 KEXFL = 0.61988439E 09

J = 0.207204E-03 KETAV= 0.489874E 01 KETFL= 0.635236E 09 TZERO = 0.378986E 05 TD = 0.940504E 03

Figure 3. - Continued.

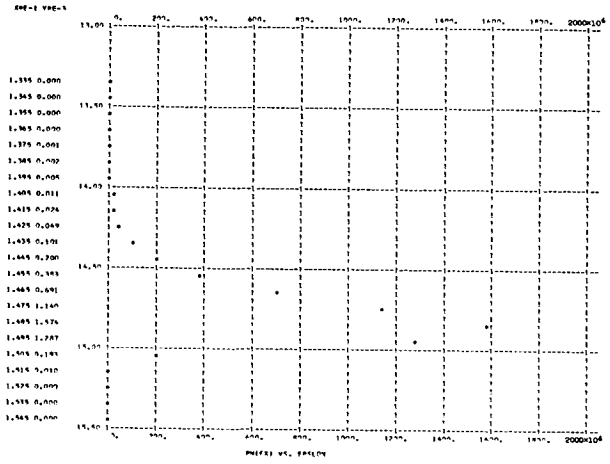


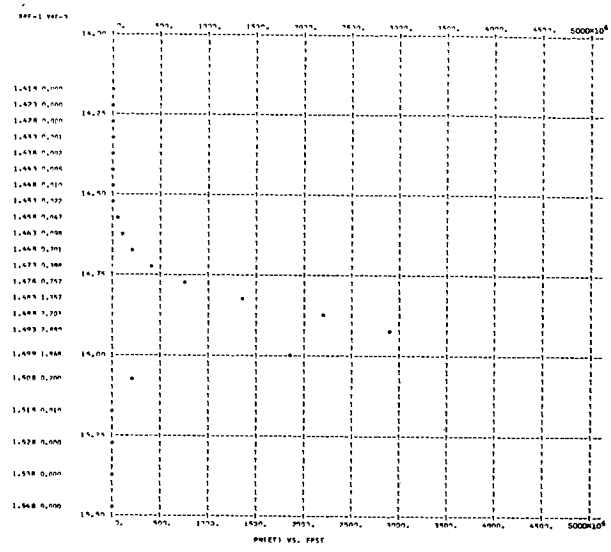
T = 0.30000000E 03 E = 0.31522784E 08 PHI = 6.00 AMU = 10.00 EVMAX = 14.0559

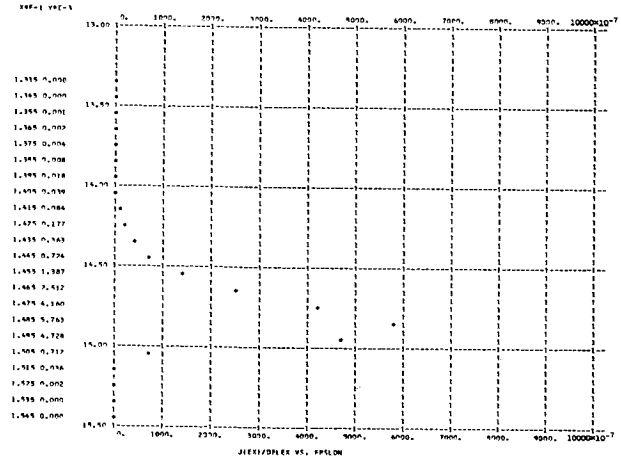
NEM = 0.14365808E 24 NEE = 0.69733898E 07 VXAV = 0.18547044E 09 KEXAV = 0.97804957E 01 KEXFL = 0.19142810E 10

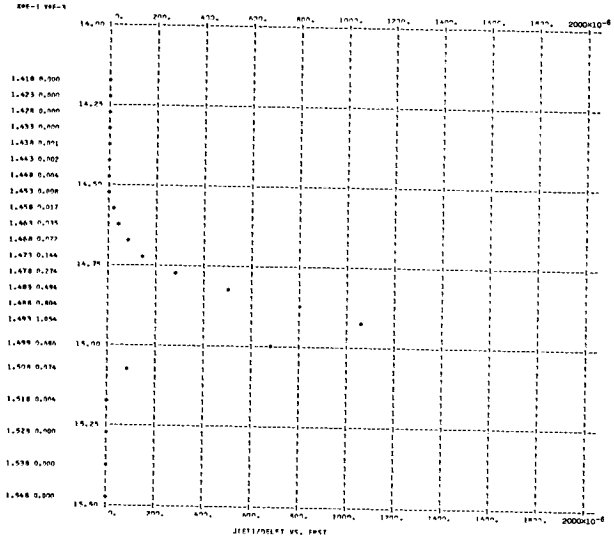
J = 0.207196E-03 KETAV= 0.989954E 01 KETFL= 0.183625E 10 TZERO = 0.765876E 05 TD = 0.927809E 03

Figure 3. - Continued.







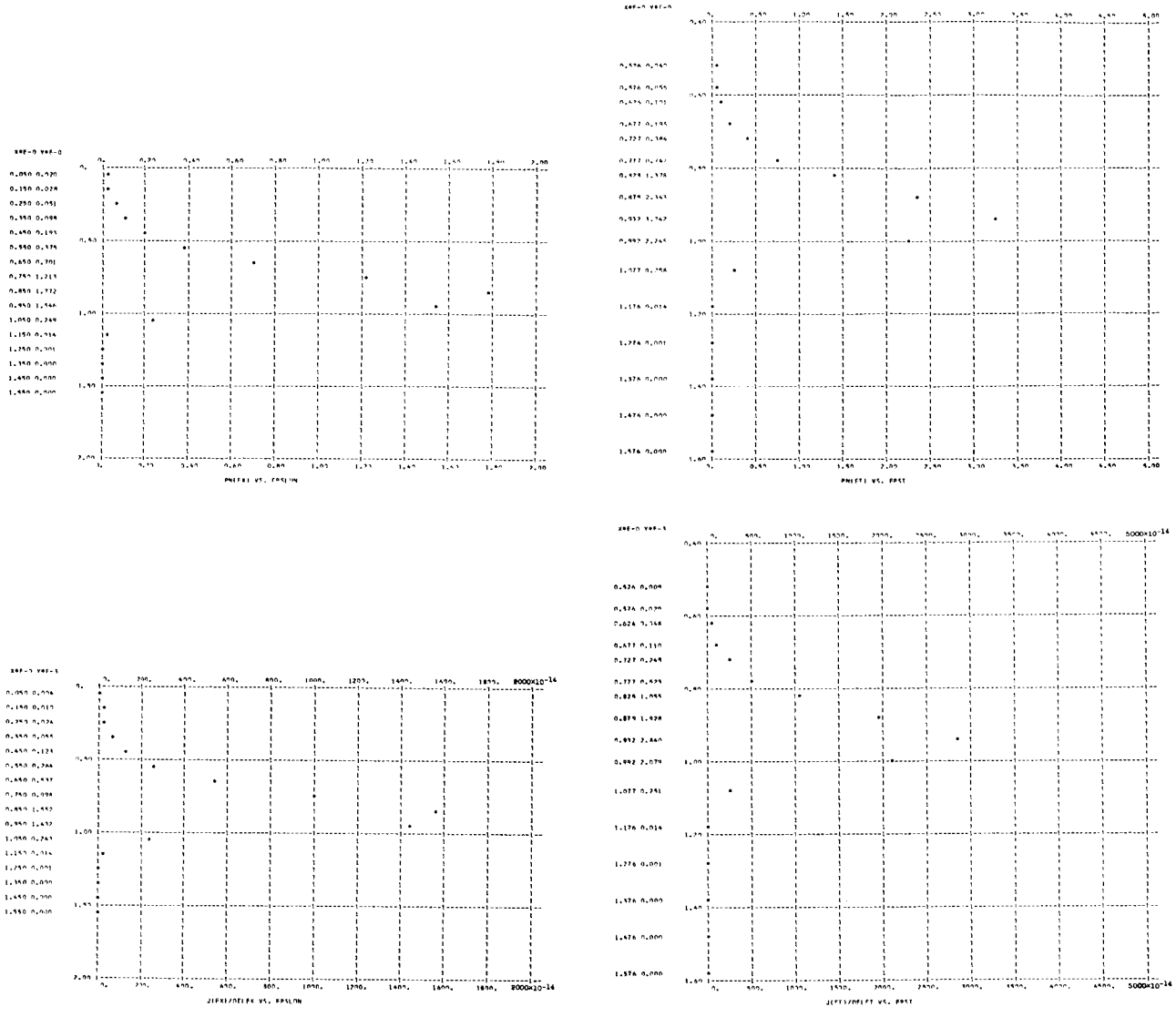


T = 0.30000000E 03 E = 0.31522784E 08 PHI = 6.00 AMU = 15.00 EVMAX = 19.0559

NEM = 0.26395249E 24 NEE = 0.56724238E 07 VXAV = 0.22801131E 09 KEXAV = 0.14781028E 02 KEXFL = 0.337047 47E 10

J = 0.207199E-03 KETAV= 0.148999E 02 KETFL= 0.339748E 10 TZERO = 0.115272E 06 TO = 0.923835E 03

Figure 3. - Continued.

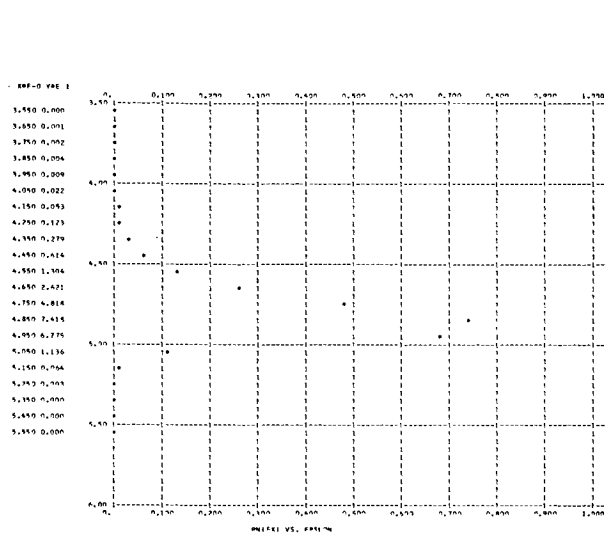


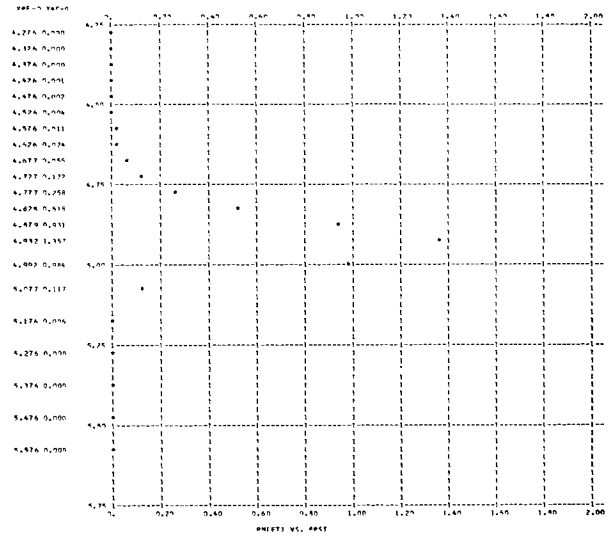
T = 0.30000000E 03 E = 0.31522784E 08 PHI = 8.00 AMU = 1.00 EVMAX = 7.0085

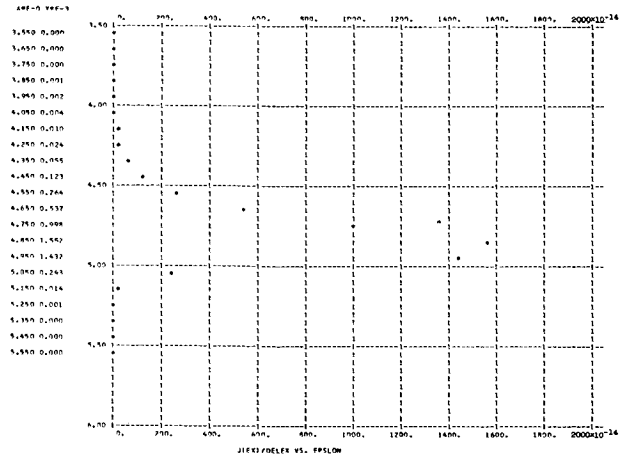
NEM = 0.45046996E 22 NEF = 0.62732689E 00 VXAV = 0.52363051E 08 KEXAV = 0.79180186E 00 KEXFL = 0.42577402E 08

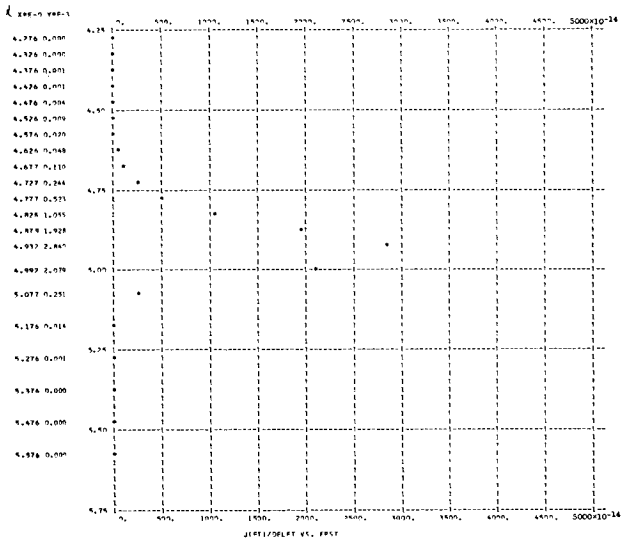
J = 0.526237E-11 KETAV= 0.905942E 00 KETFL= 0.480382E 08 TZERO = 0.700873E 04 TD = 0.978057E 03

Figure 3. - Continued.







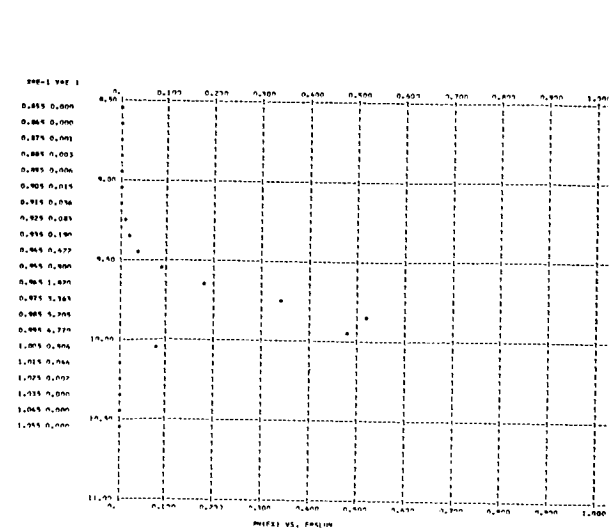


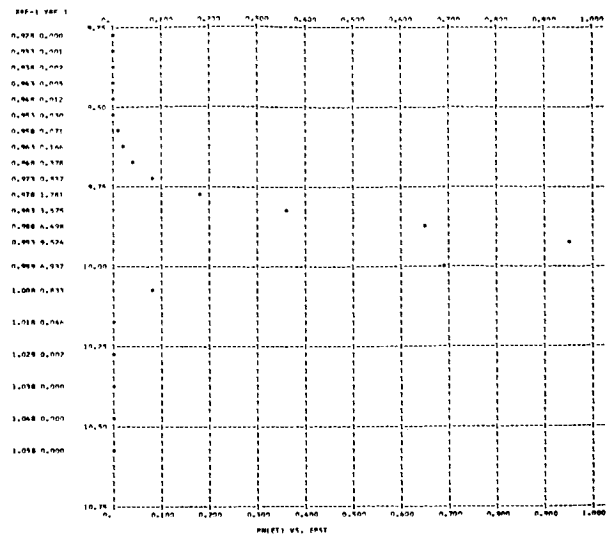
T = 0.30000000E 03 E = 0.31522784E 08 PHI = 8.00 AMU = 5.00 EVMAX = 11.0085

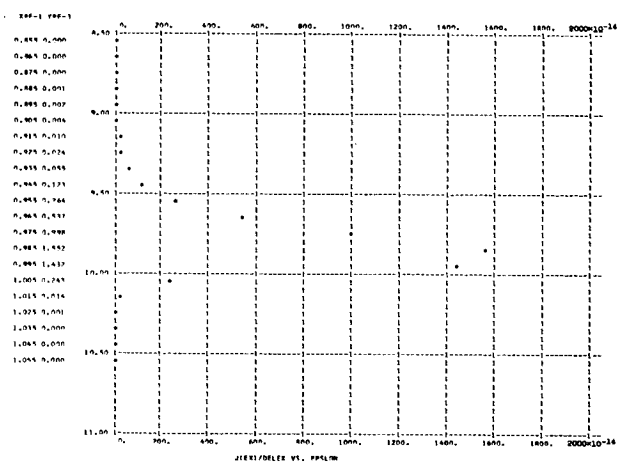
NEM = 0.50763609E 23 NEF = 0.25248642E-00 VXAV = 0.13005945E 09 KEXAV = 0.48103623E 01 KEXFL = 0.62596715E 09

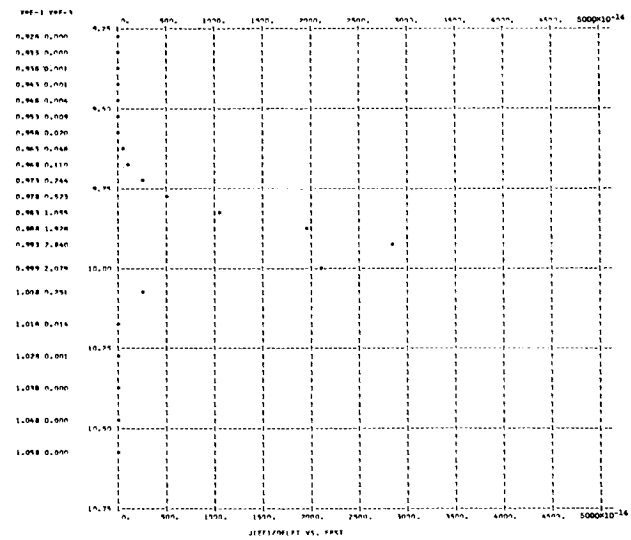
J = 0.526069E-11 KETAV= 0.491590E 01 KETFL= 0.639543E 09 TZERO = 0.380314E 05 TO = 0.826539E 03

Figure 3. - Continued.







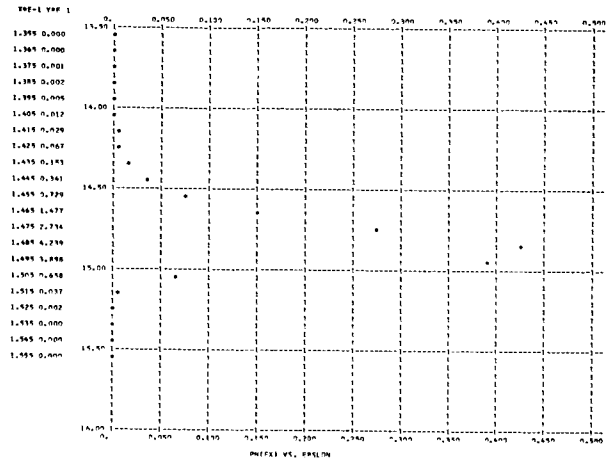


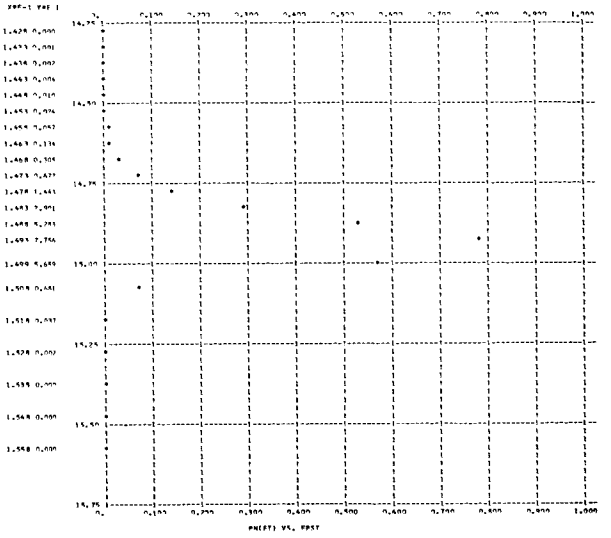
T = 0.30000000E 03 E = 0.31522784E 08 PHI = 8.00 AMU = 10.00 EVMAX = 16.0085

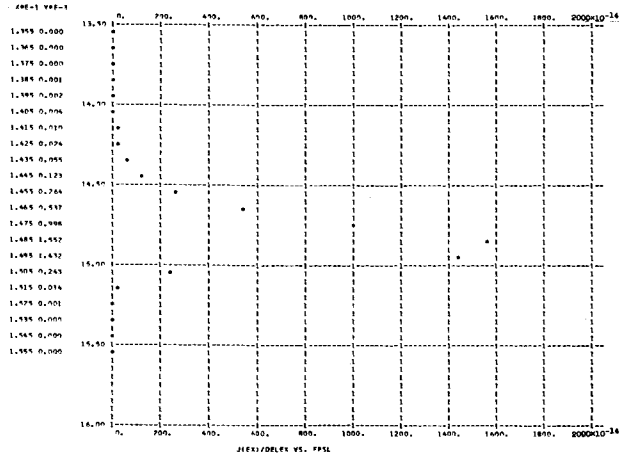
NEN = 0.14365808E 24 NEE = 0.17676122E-00 VXAV = 0.18576747E 09 KEXAV = 0.98116874E 01 KEXFL = 0.18229226E 10

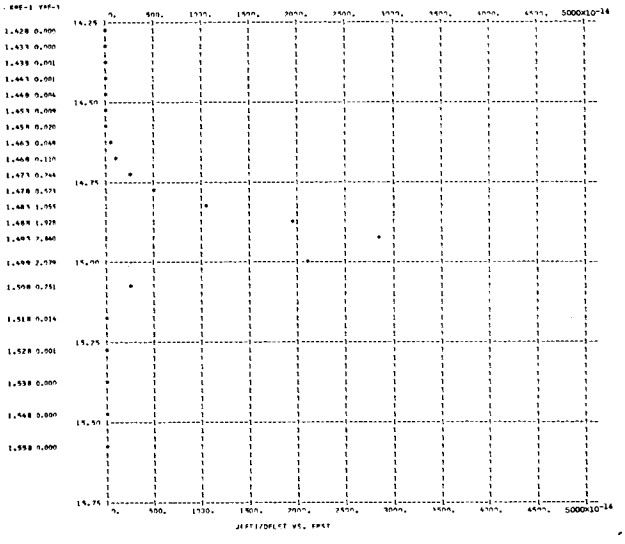
J = 0.526041E-11 KETAV= 0.991653E 01 KETFL= 0.184231E 10 TZERO = 0.767190E 05 TD = 0.814687E 03

Figure 3. - Continued.







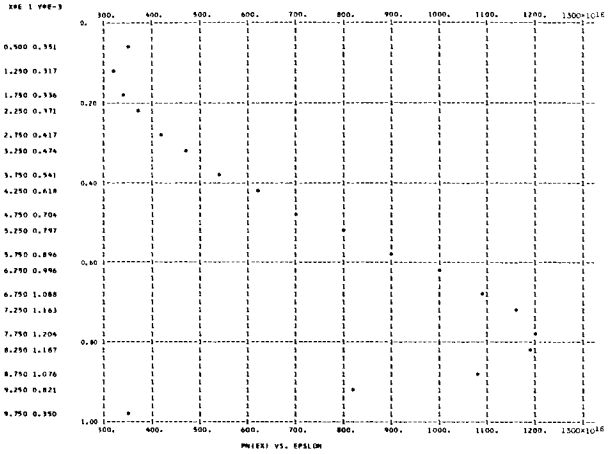


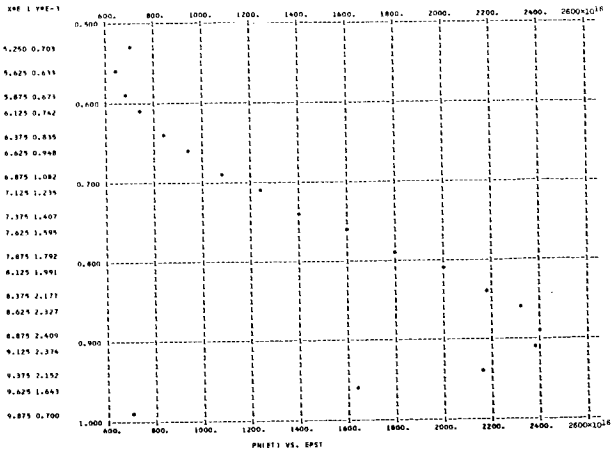
T = 0.30000000E 03 E = 0.31522784E 08 PHI = 8.00 AMU = 15.00 EVMAX = 21.0085

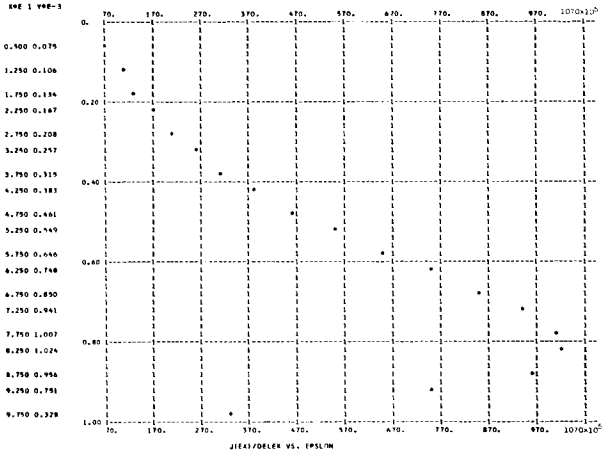
NEM = 0.26395249E 24 NEE = 0.14385805E-00 VXAV = 0.22825172E 09 KEXAV = 0.14812109E 02 KEXEL = 0.33810758E 10

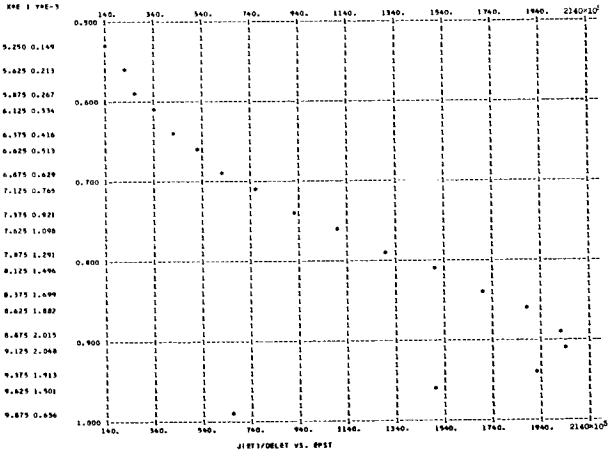
J = 0.526030E-11 KETAV= 0.149159E 02 KETEL= 0.340490E 10 TZERO = 0.115403E 06 TO = 0.913566E 03

Figure 3. - Continued.









T = 0. E = 0.31622784E 08 PHI = 2.00 AMU = 1.00 EVMAX = 1.4353

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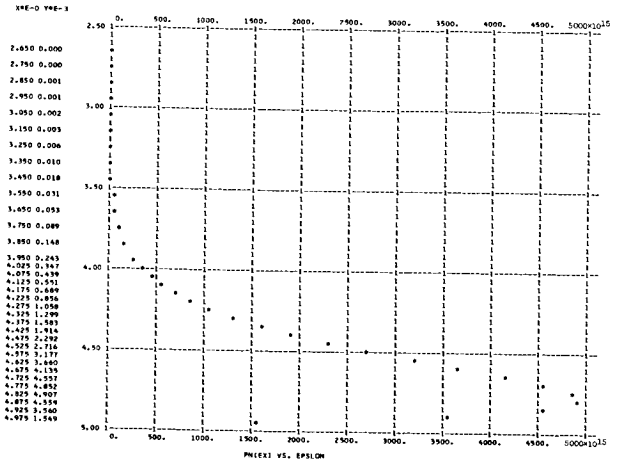
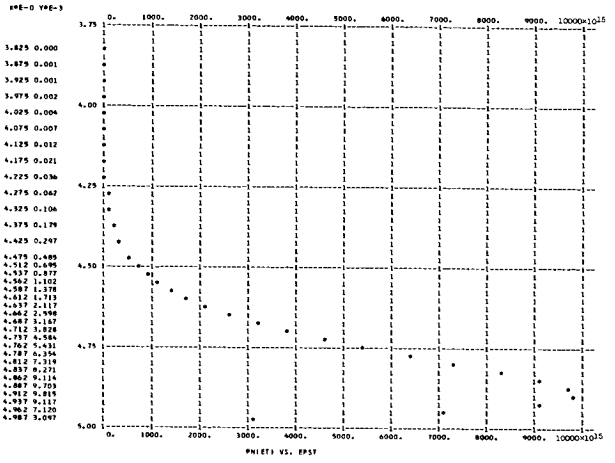
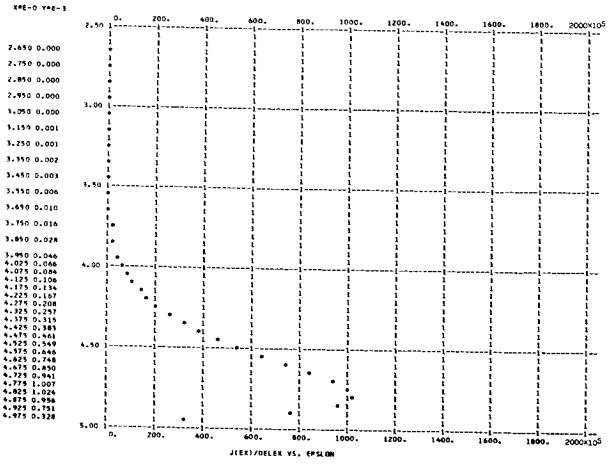
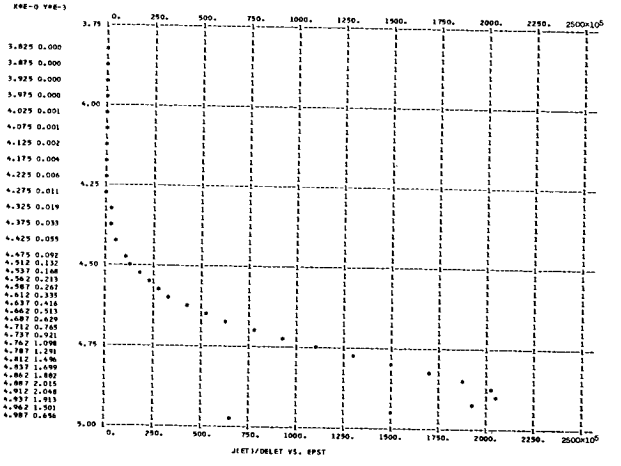
J = 0.502184E 08 KETAV= 0.792238E 00 KETFL= 0.361521E 08 TZERO = 0.612907E 04 TD = 0.193445E 04

Figure 3. - Continued.









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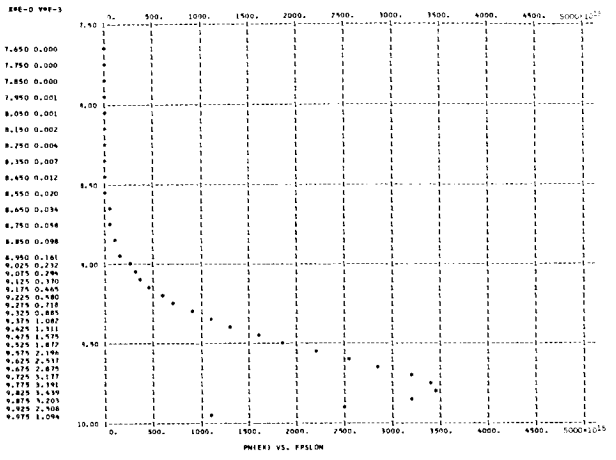
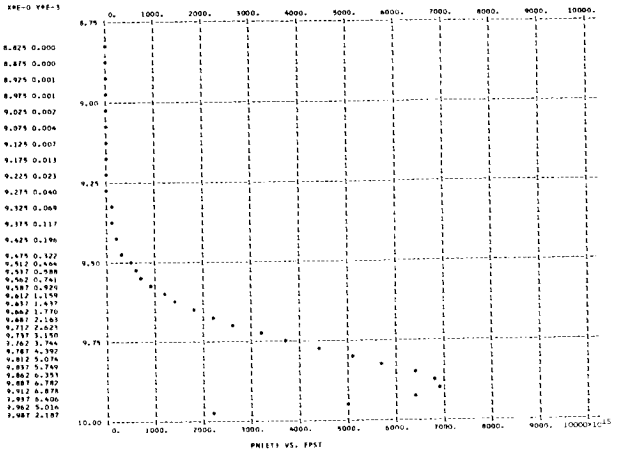
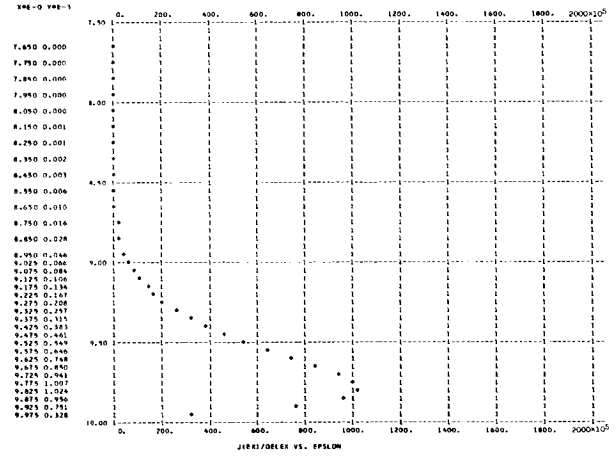
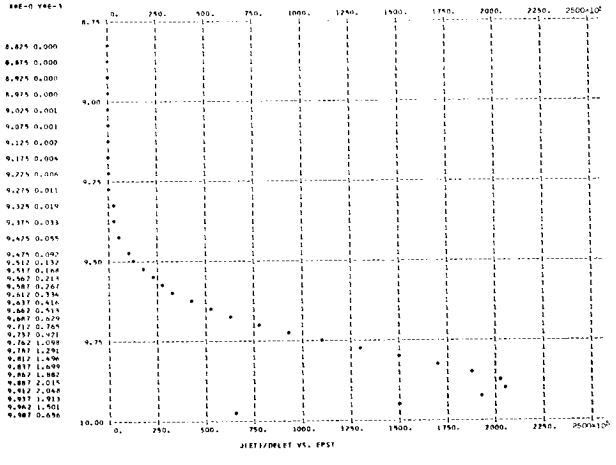
J = 0.510210E 08 KETAV= 0.481690E 01 KETFL= 0.615171E 09 TZERO = 0.372654E 05 TD = 0.144428E 04

Figure 3. - Continued.









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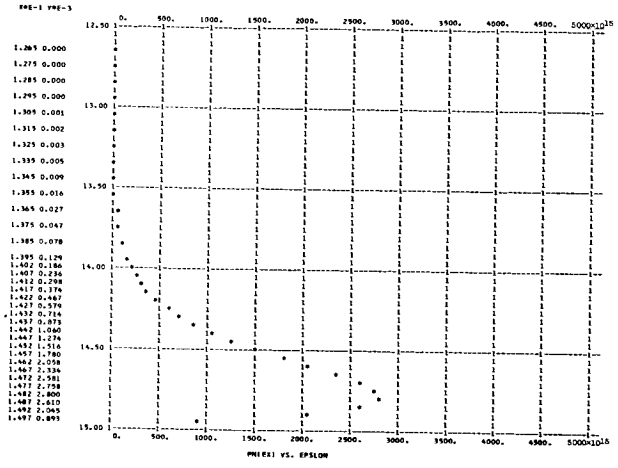
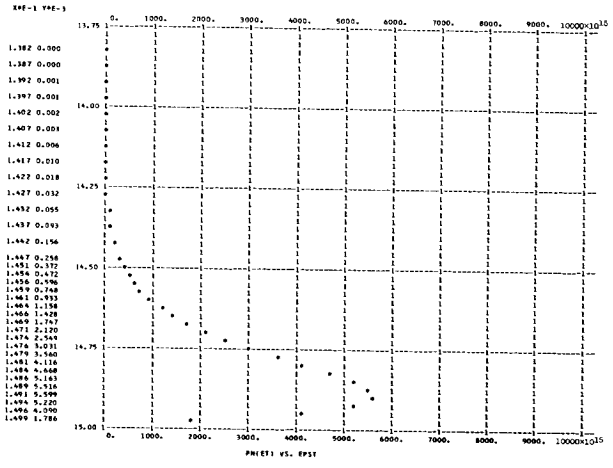
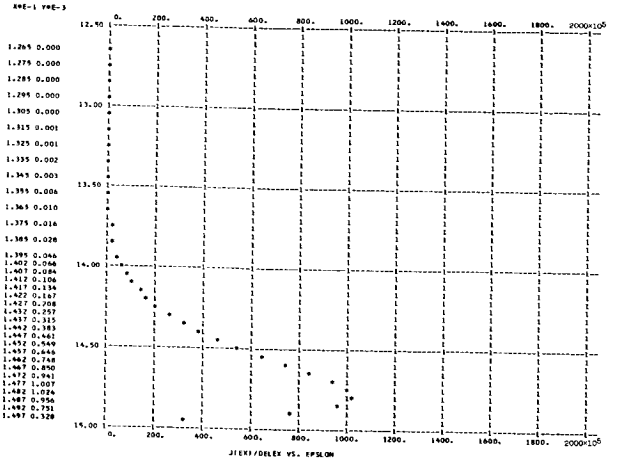
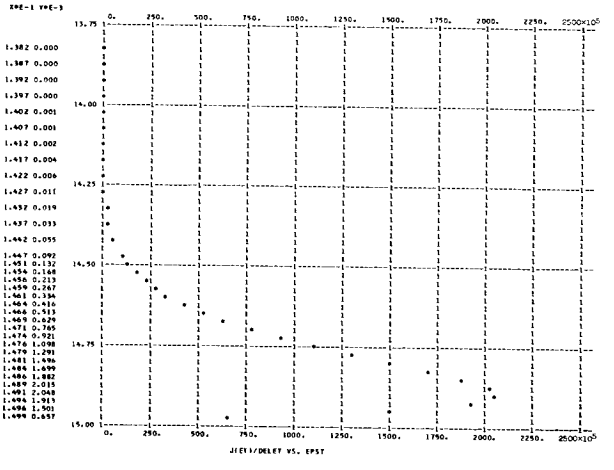
J = 0.510209E 08 KETAV= 0.981877E 01 KETFL= 0.180795E 10 TZERO = 0.759620E 05 TD = 0.141482E 04

Figure 3. - Continued.









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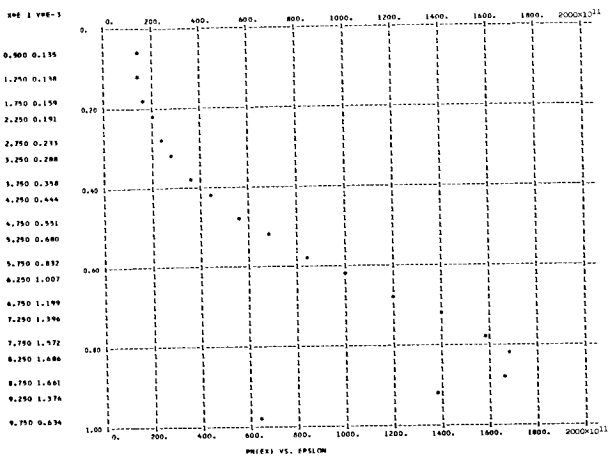
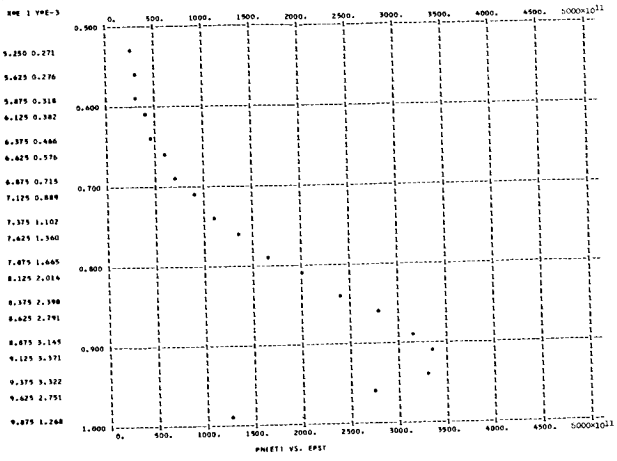
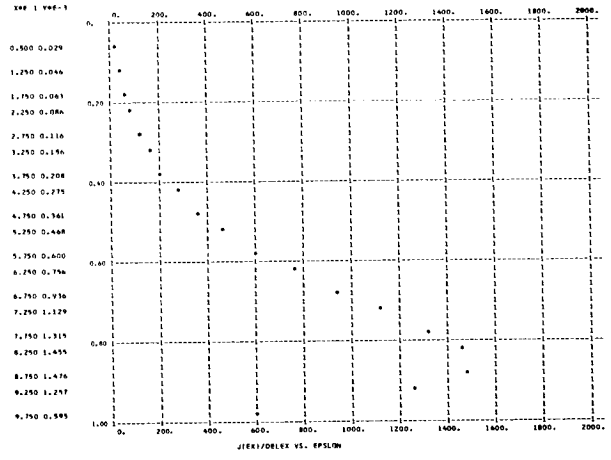
NEM = 0.26395187E 24 NEE = 0.14035859E 19 VXAV = 0.22690636E 09 KEXAV = 0.14638681E 02 KEXFL = 0.33220939E 10

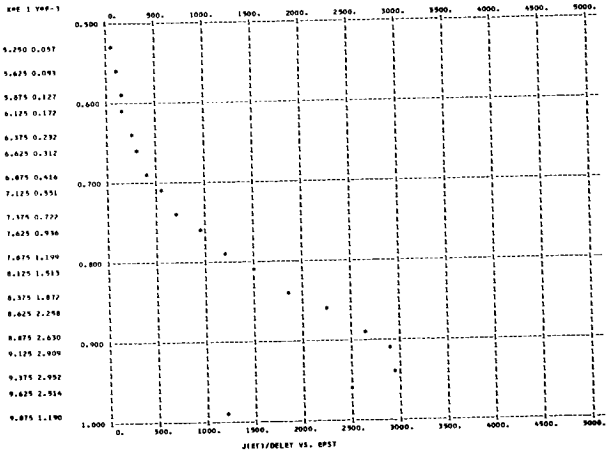
J = 0.510209E 08 KETAV= 0.148193E 02 KETFL= 0.336284E 10 TZERO = 0.114648E 06 TD = 0.140595E 04

Figure 3. - Continued.









T = 0. E = 0.31622784E 08 PHI = 4.00 AMU = 1.00 EVMAX = 3.1508

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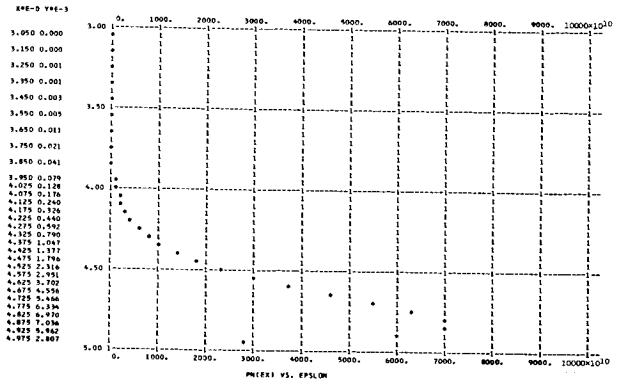
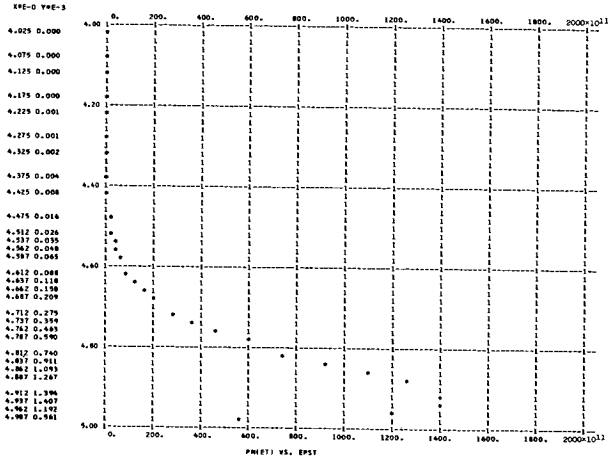
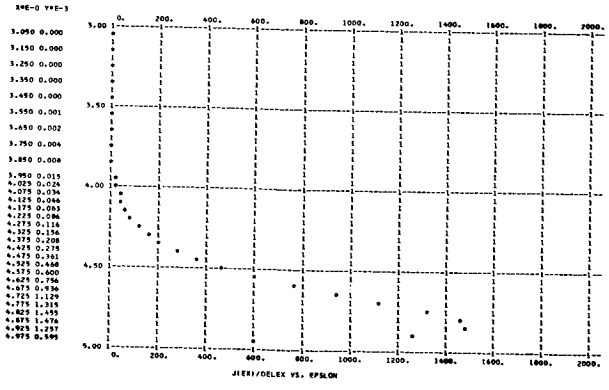
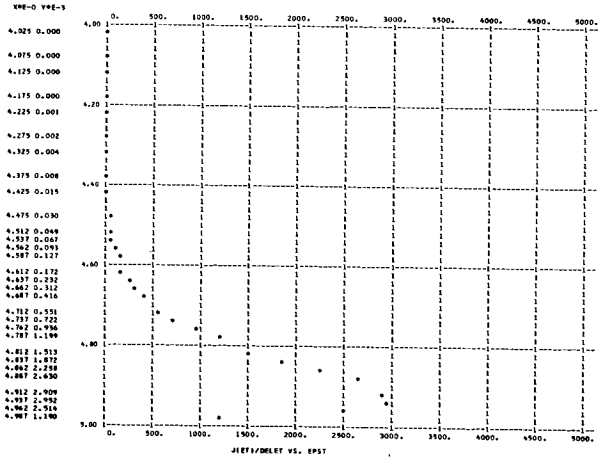
J = 0.569140E 03 KETAV= 0.841099E 00 KETFL= 0.414429E 08 TZERO = 0.650708E 04 TD = 0.143183E 04

Figure 3. - Continued.









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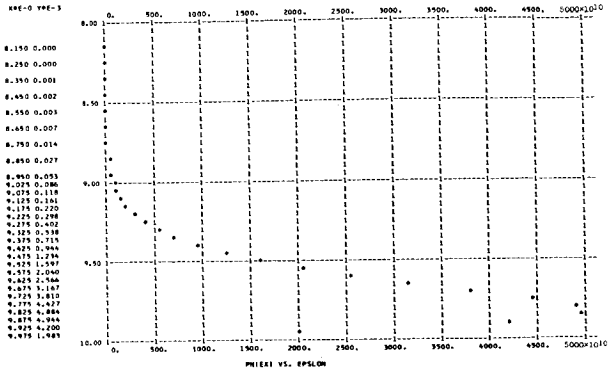
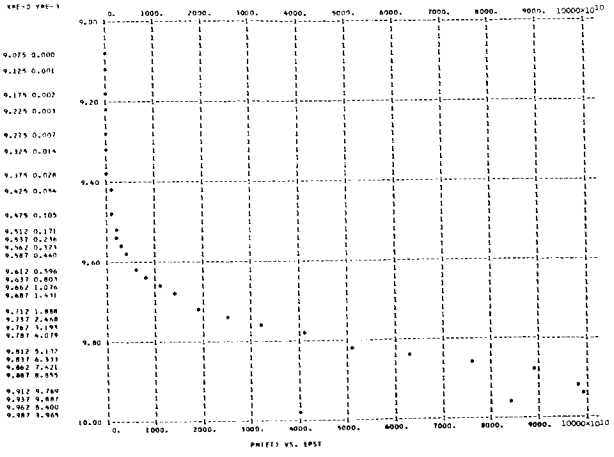
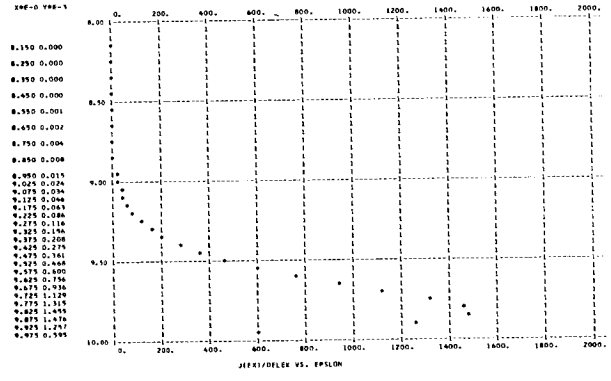
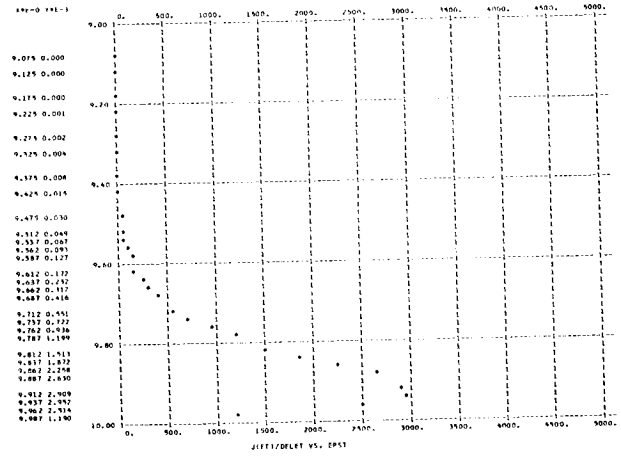
J = 0.570893E 03 KETAV= 0.485902E 01 KETFL= 0.626081E 09 TZERO = 0.375913E 05 TD = 0.110723E 04

Figure 3. - Continued.









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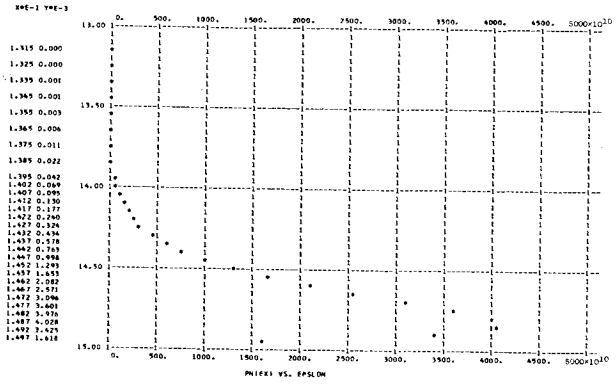
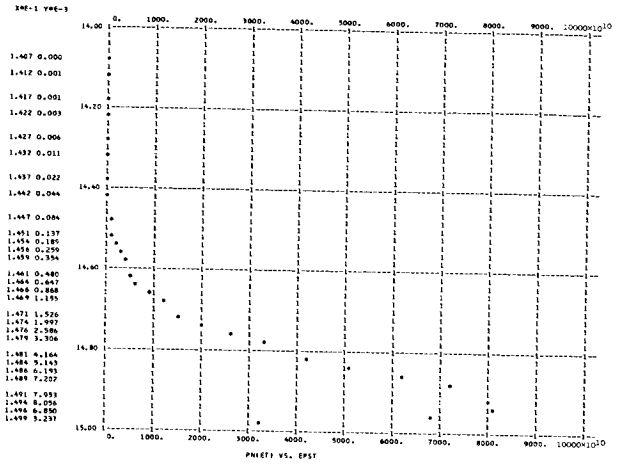
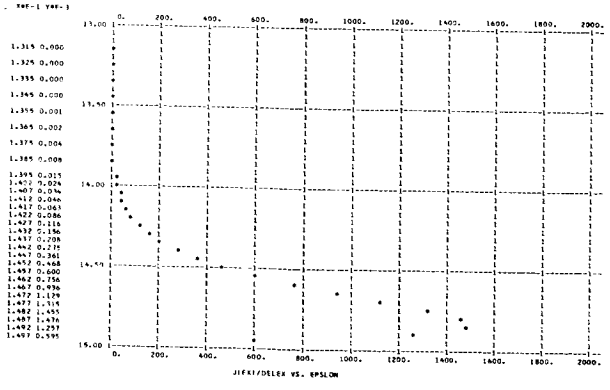
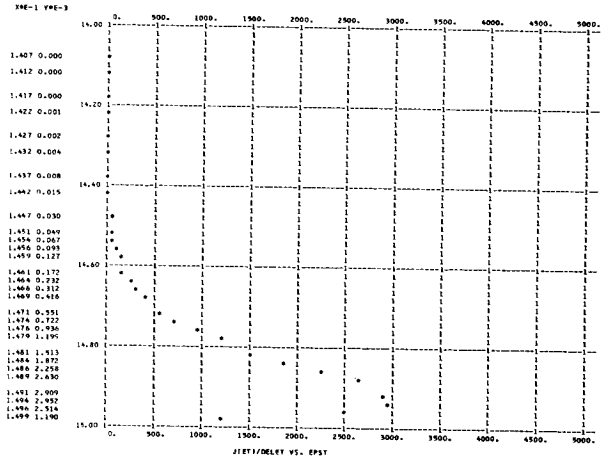
J = 0.570892E 03 KETAV= 0.986013E 01 KETFL= 0.182328E 10 TZERO = 0.762819E 05 TD = 0.108989E 04

Figure 3. - Continued.







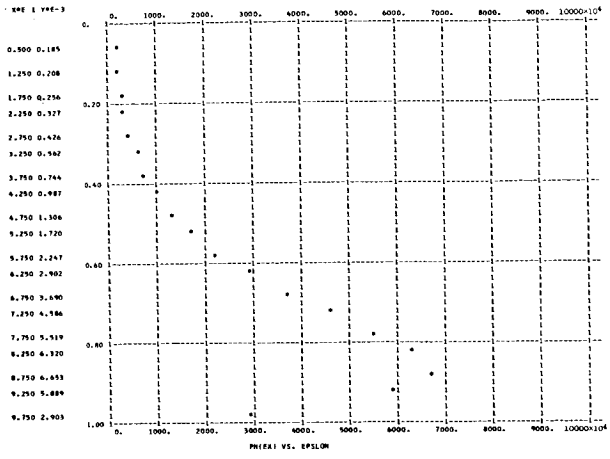


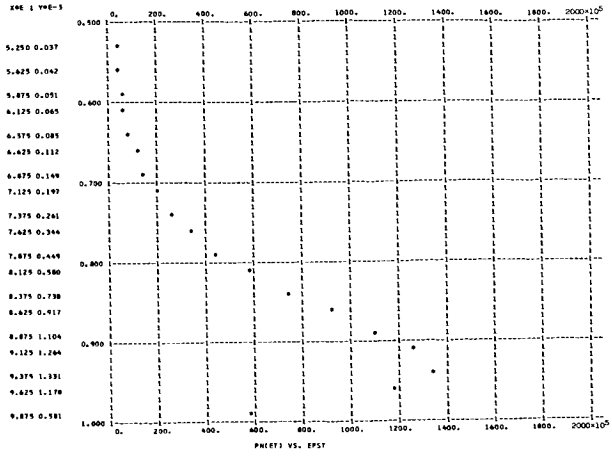
T = 0. E = 0.31622784E 08 PHI = 4.00 AMU = 15.00 EVMAX = 17.1508

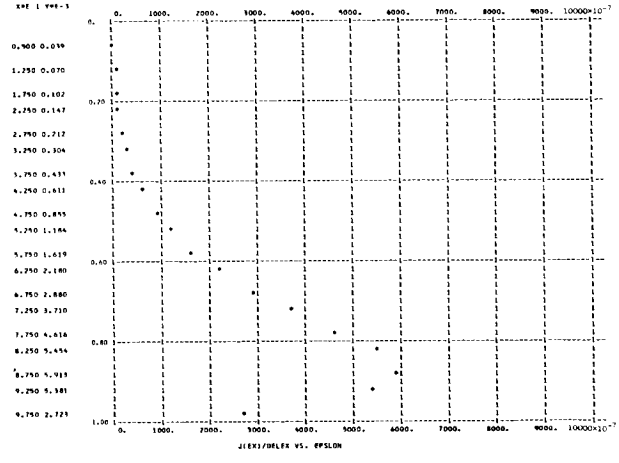
NEM = 0.26395187E 24 NEE = 0.15661187E 14 VXAV = 0.22754624E 09 KEXAV = 0.14720938E 02 KEXFL = 0.33499913E 10

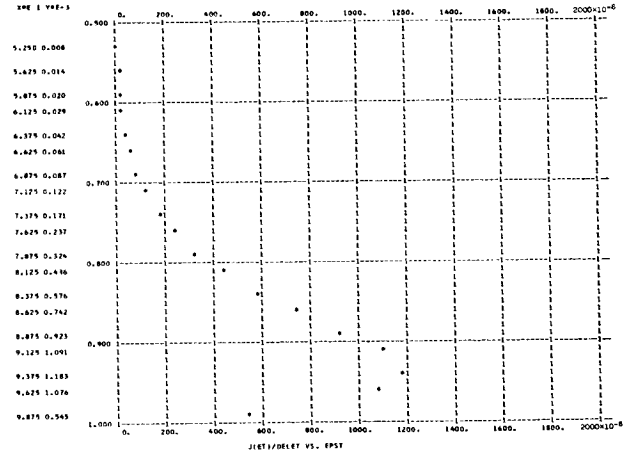
J = 0.570896E 03 KETAV= 0.148605E 02 KETFL= 0.338159E 10 TZERO = 0.114967E 06 TD = 0.108454E 04

Figure 3. - Continued.







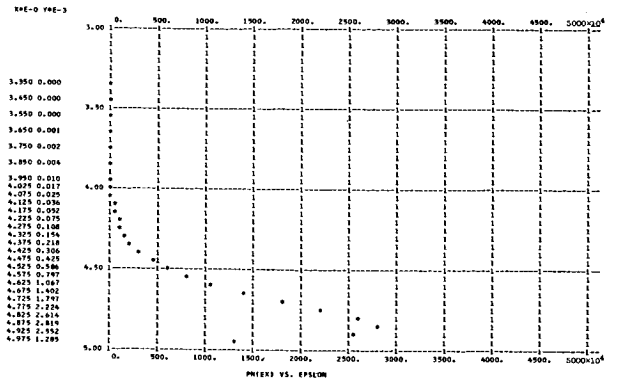


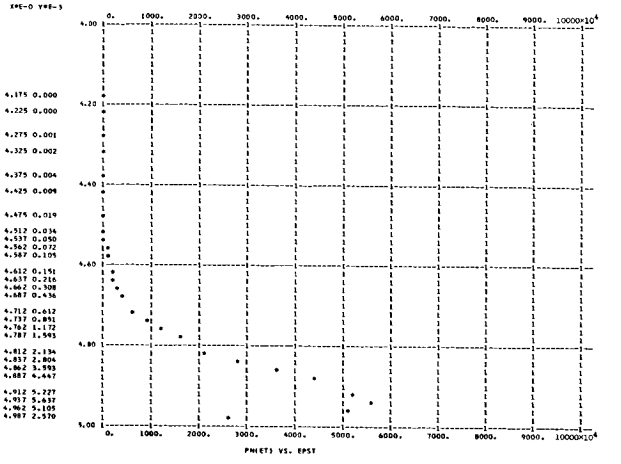
T = 0. E = 0.31622784E 08 PHI = 6.00 AMU = 1.00 EVMAX = 5.0559

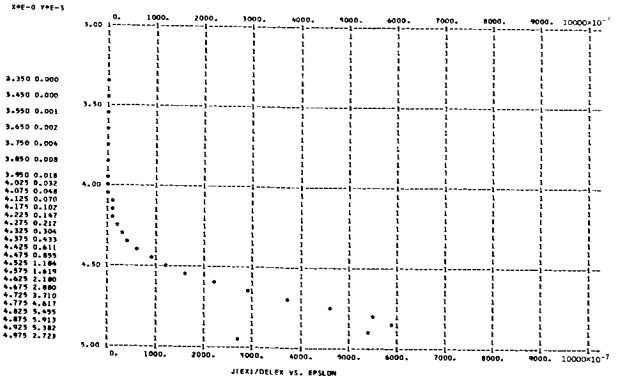
NEM = 0.45067790E 22 NEE = 0.23889545E 08 VXAV = 0.50317779E 08 KEXAV = 0.73692495E 00 KEXFL = 0.38525479E 08

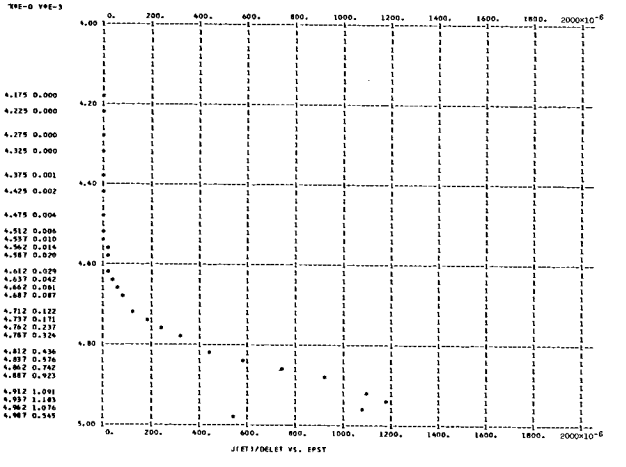
J = 0.192571E-03 KETAV= 0.868462E 00 KETFL= 0.444216E 08 TZERO = 0.671877E 04 TD = 0.115001E 04

Figure 3. - Continued.









T = 0. E = 0.31622784E 08 PHI = 6.00 AMU = 5.00 EVMAX = 9.0559

NEM = 0.50762631E 23 NEE = 0.92966720E 07 VXAV = 0.12939679E 09 KEXAV = 0.47617154E 01 KEXFL = 0.61654174E 09

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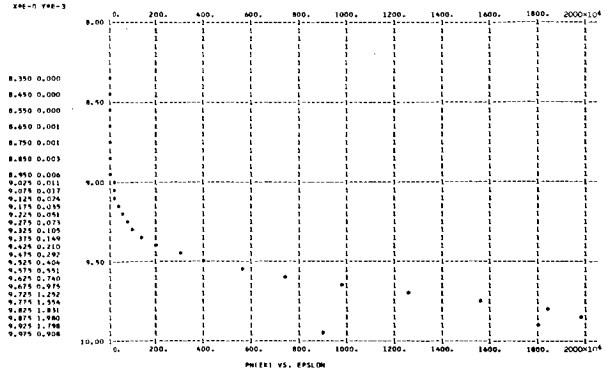
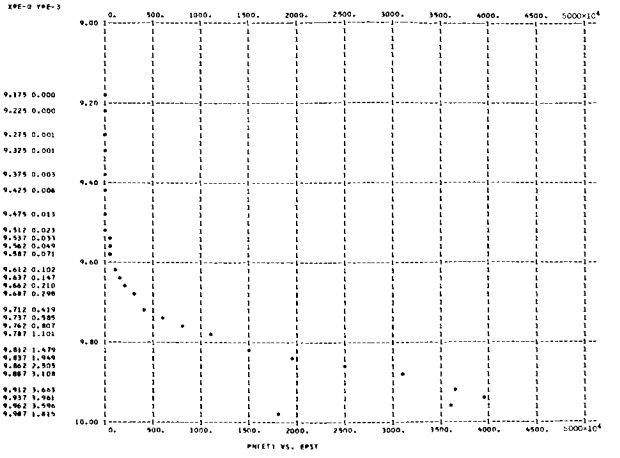
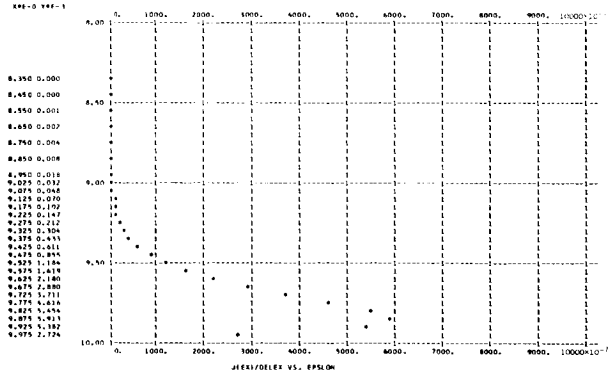
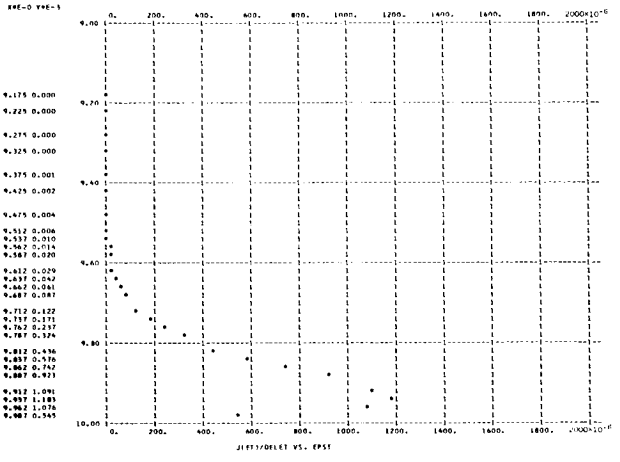
Figure 3. - Continued.







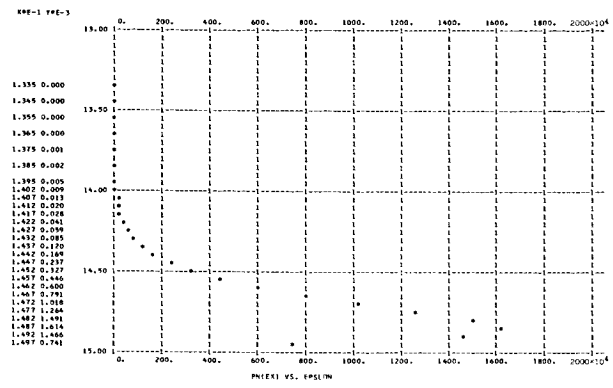


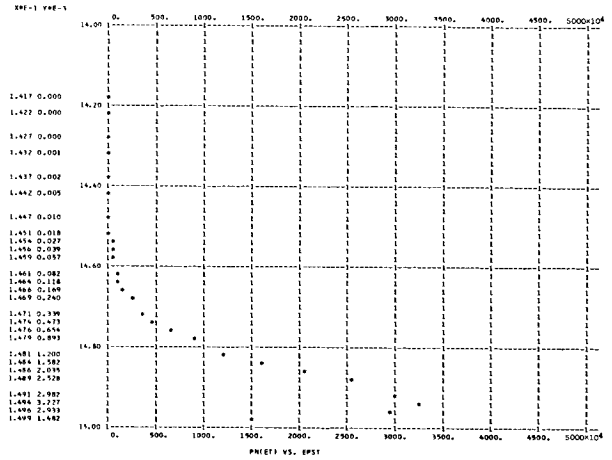
T = 0. E = 0.31622784E 08 PHI = 6.00 AMU = 10.00 EVMAX = 14.0559

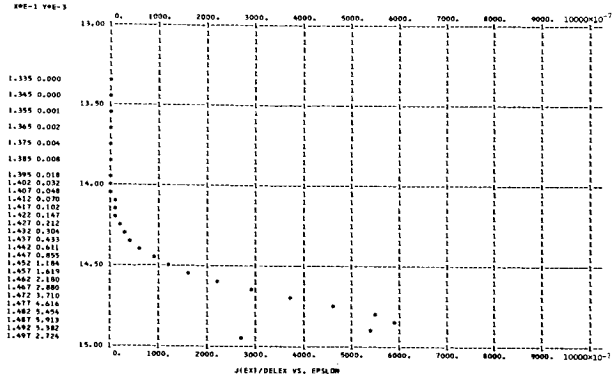
NEM = 0.14365733E 24 NEE = 0.64916143E 07 VXAV = 0.18530776E 09 KEXAV = 0.97632924E 01 KEXFL = 0.18094814E 10

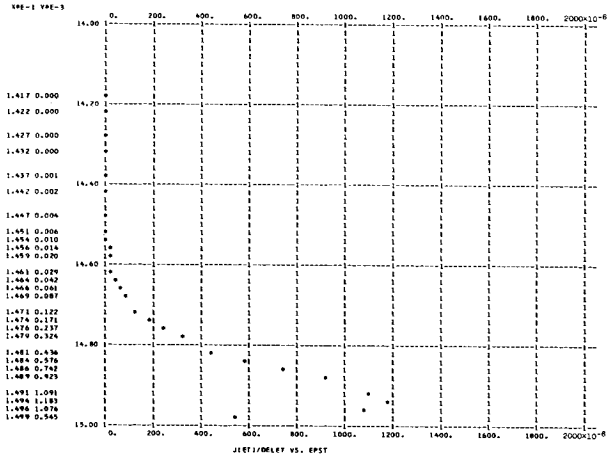
J = 0.192712E-03 KETAV= 0.988165E 01 KETFL= 0.183128E 10 TZERO = 0.764484E 05 TD = 0.921251E 03

Figure 3. - Continued.







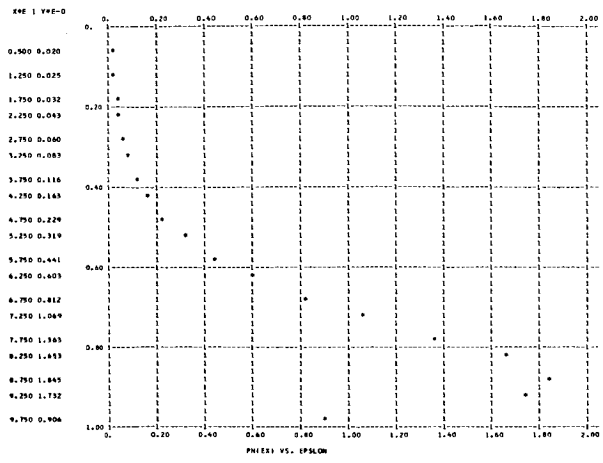


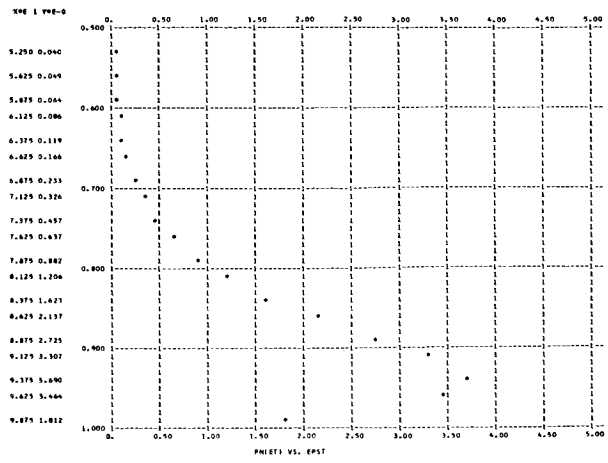
T = 0. E = 0.31622784E 08 PHI = 6.00 AMU = 15.00 EVMAX = 19.0559

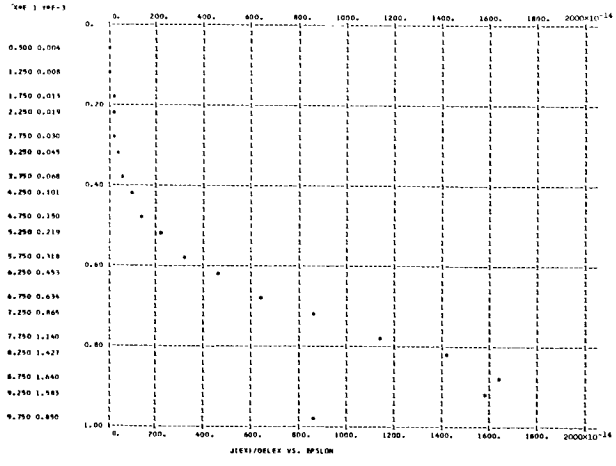
NEN = 0.26395187E 24 NEE = 0.52788527E 07 VXAV = 0.22787859E 09 KEXAV = 0.14763789E 02 KEXFL = 0.33645675E 10

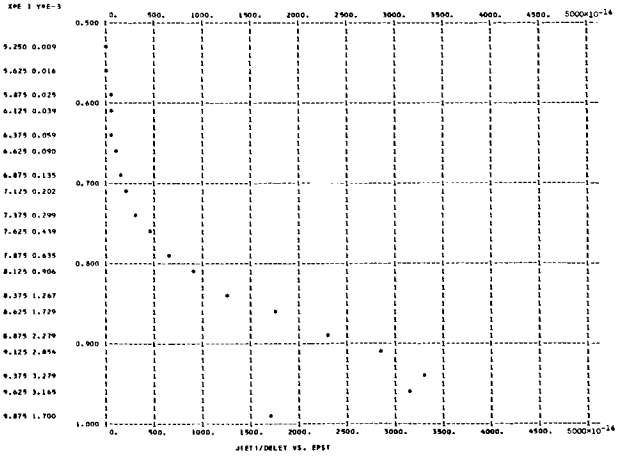
J = 0.192711E-03 KETAV= 0.148819E 02 KETFL= 0.339137E 10 TZERO = 0.115132E 06 TD = 0.917394E 03

Figure 3. - Continued.







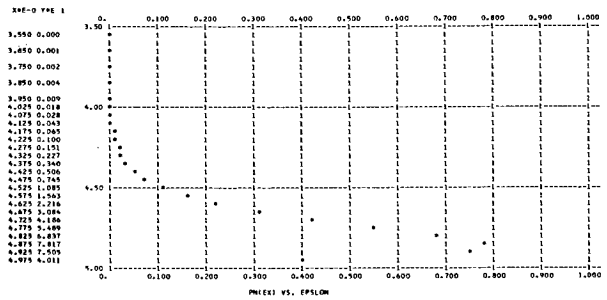


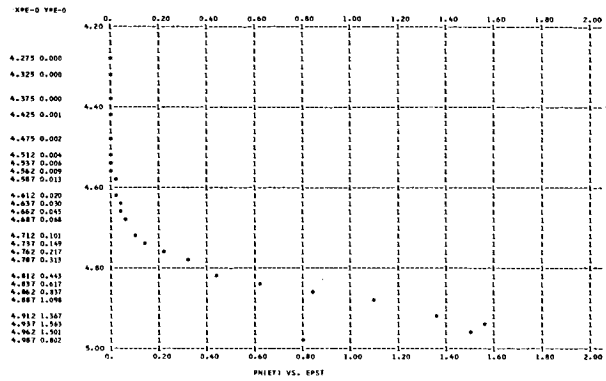
T = 0. E = 0.31622784E 08 PHI = 8.00 AMU = 1.00 EVMAX = 7.0085

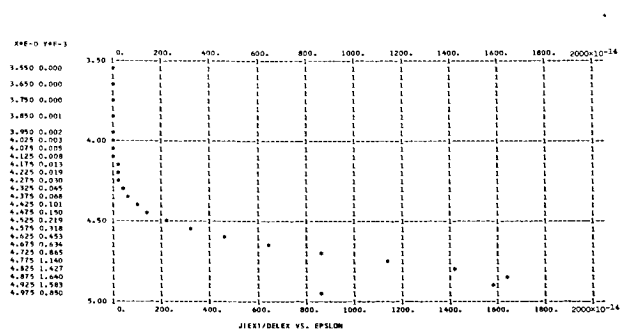
NEM = 0.45067790E 22 NEE = 0.57751986E 00 VXAV = 0.51738093E 08 KEXAV = 0.77288423E 00 KEXFL = 0.41041985E 08

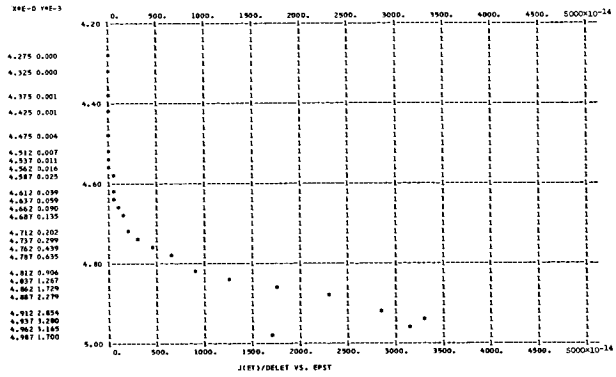
J = 0.478674E-11 KETAV= 0.886442E 00 KETFL= 0.463900E 08 TZERO = 0.685787E 04 TD = 0.970295E 03

Figure 3. - Continued.







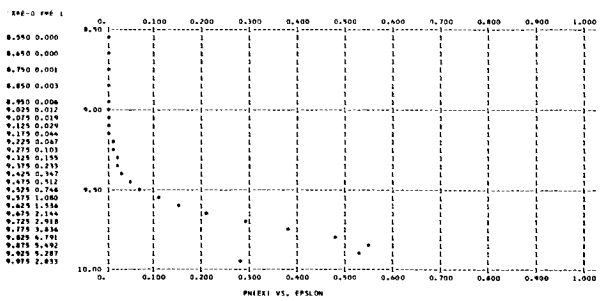


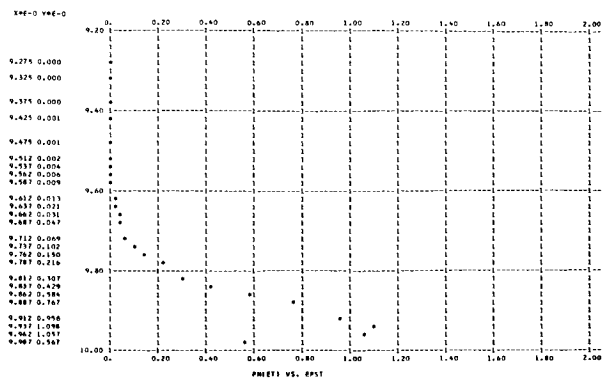
T = 0. E = 0.31622784E 08 PHI = 8.00 AMU = 5.00 EVMAX = 11.0085

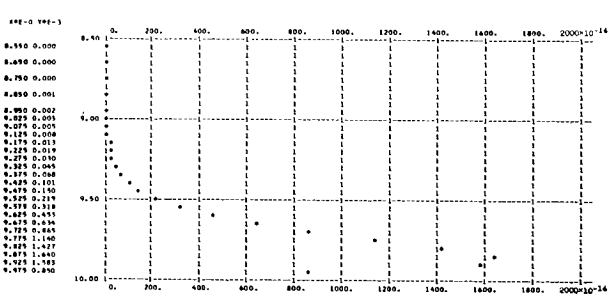
NEN = 0.50762631E 23 NEE = 0.23024183E-00 VXAV = 0.12979405E 09 KEXAV = 0.47906435E 01 KEXFL = 0.62210140E 09

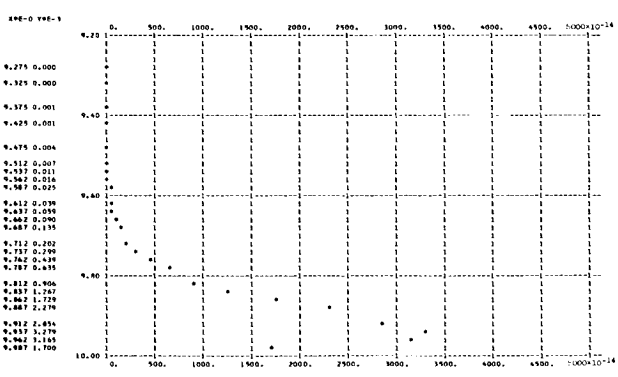
J = 0.478742E-11 KETAV= 0.489532E 01 KETFL= 0.635536E 09 TZERO = 0.378722E 05 TD = 0.819007E 03

Figure 3. - Continued.







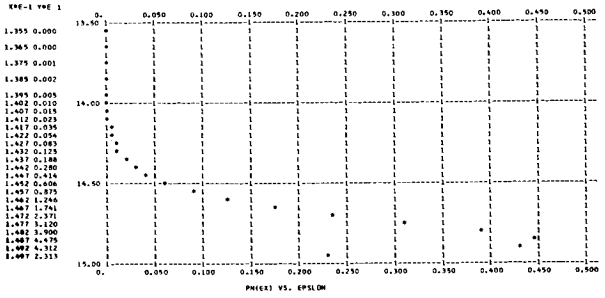


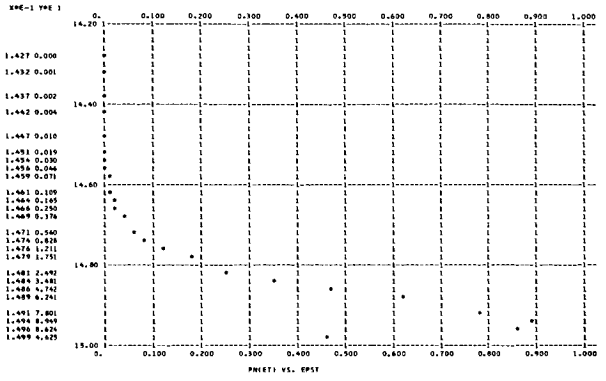
T = 0. E = 0.31622784E 08 PHI = 8.00 AMU = 10.00 EVMAX = 16.0085

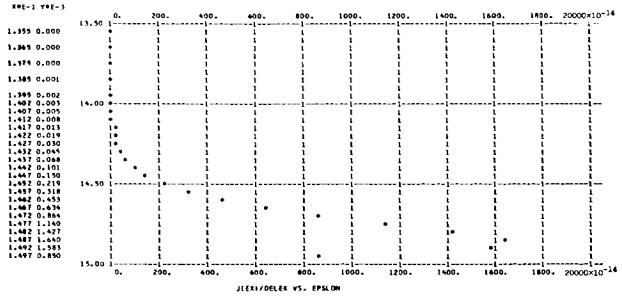
NEM = 0.14365733E 24 NEE = 0.16102911E-00 VXAV = 0.18558022E 09 KEXAV = 0.97918625E 01 KEXFL = 0.18173852E 10

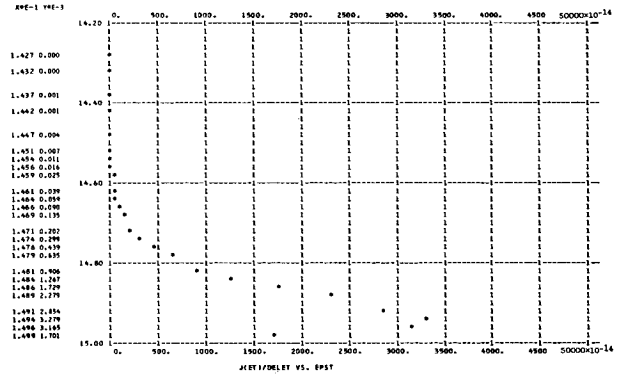
J = 0.478739E-11 KETAV= 0.989593E 01 KETFL= 0.183659E 10 TZERO = 0.765589E 05 TD = 0.809500E 03

Figure 3. - Continued.







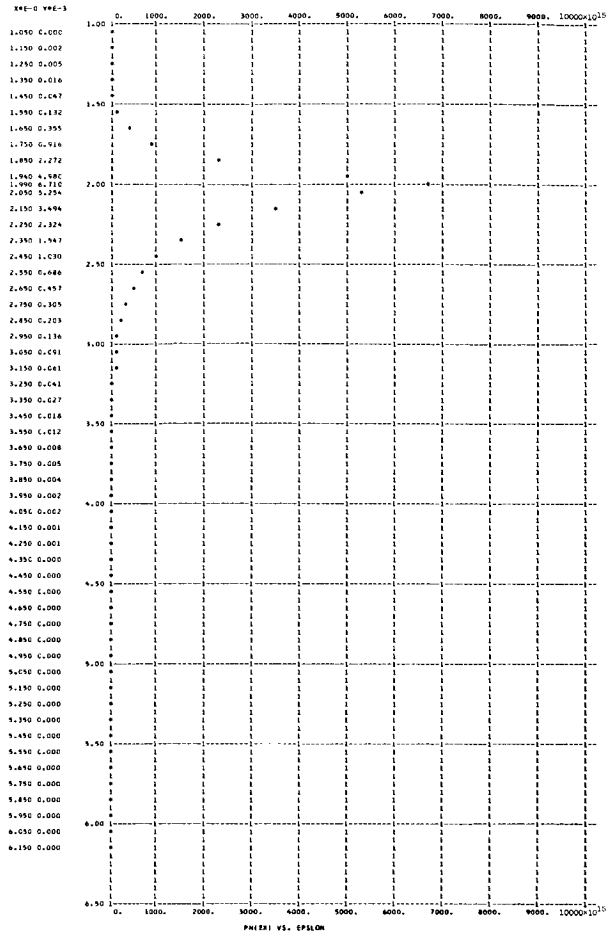


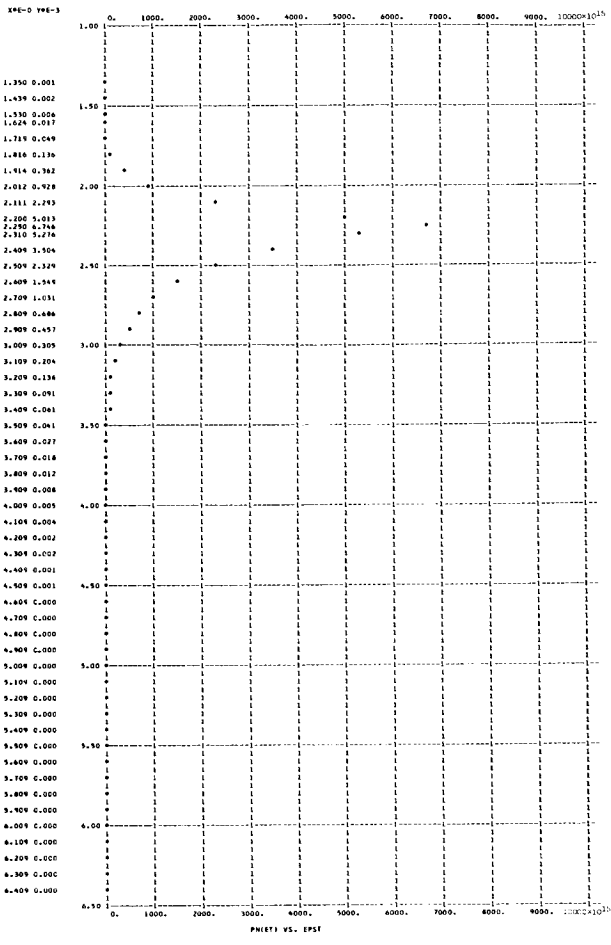
T = 0. E = 0.31622784E 08 PHI = 8.00 AMU = 15.00 EVMAX = 21.0085

NEM = 0.26395187E 24 NEE = 0.13101114E-00 VXAV = 0.22809892E 09 KEXAV = 0.14792249E 02 KEXFL = 0.33742651E 10

J = 0.478734E-11 KETAV= 0.148961E 02 KETFL= 0.339787E 10 TZERO = 0.115242E 06 TD = 0.806503E 03

Figure 3. - Continued.



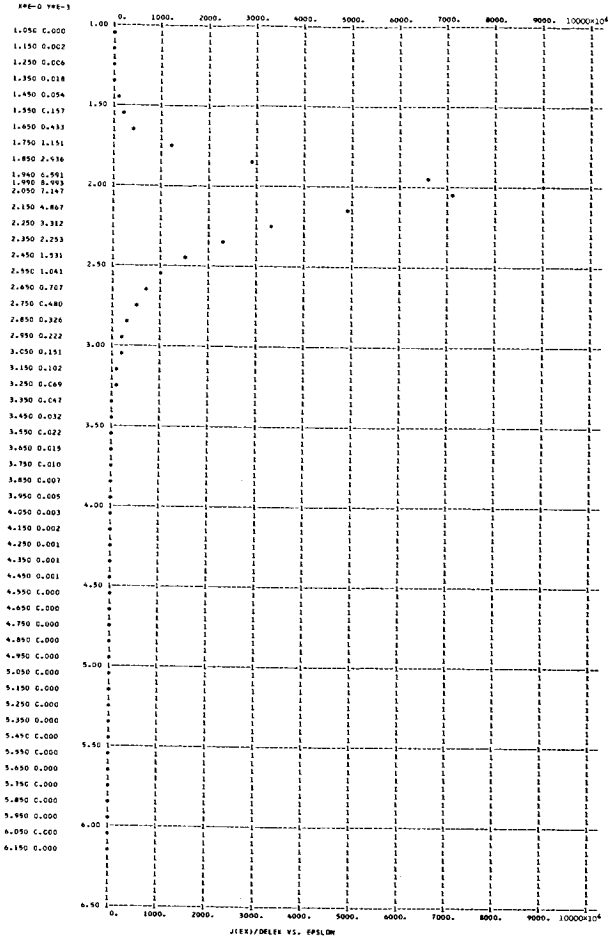


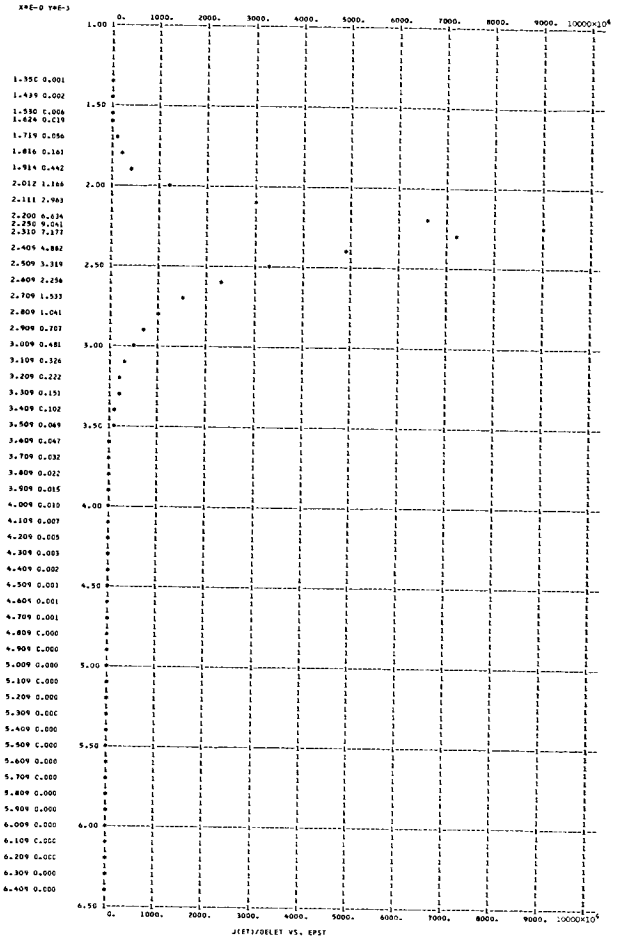
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 2.00 AMU = 1.00 EVMAX = 1.9800

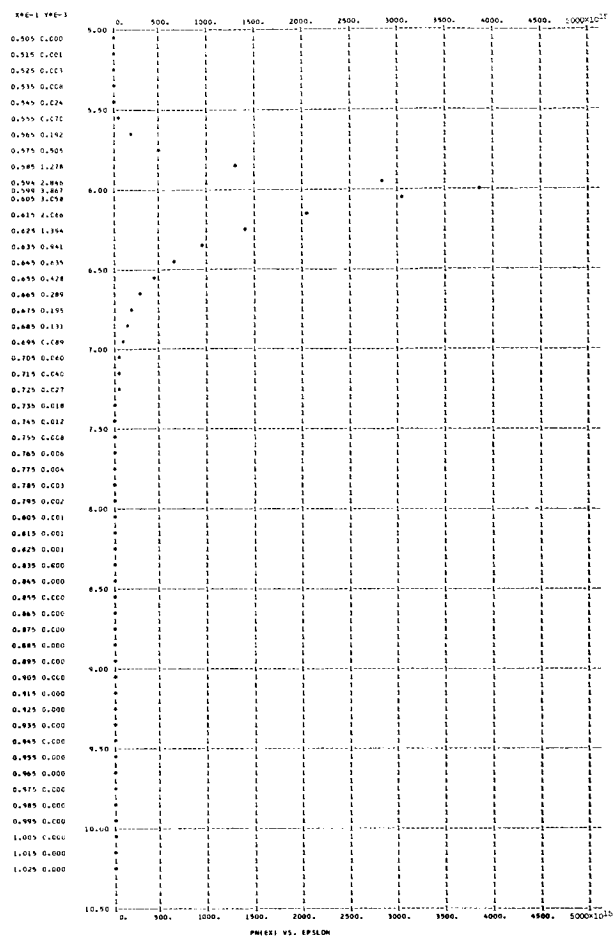
NEM = 0.49014243E 22 NEE = 0.24783085E 19 VXAV = 0.86104788E 08 KEXAV = 0.21158968E 01 KEXFL = 0.18362790E 09

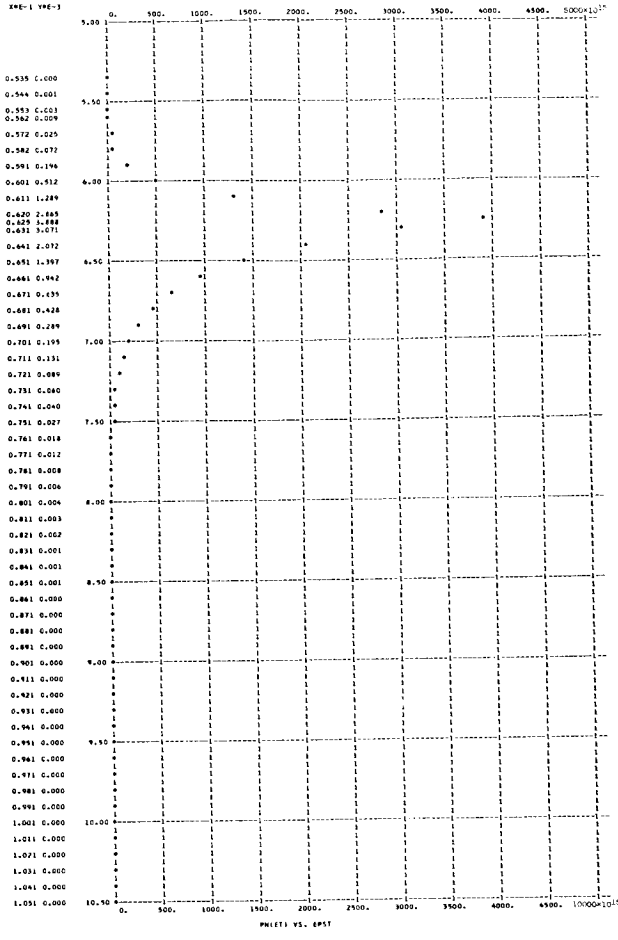
J = 0.341858E 08 KETAV= 0.237569E 01 KETFL= 0.205992E 09 TZERO = 0.183793E 05 TD = 0.207239E 04

Figure 3. - Continued.


X*E-0 Y*E-3
1.050 0.000
1.150 0.002
1.250 0.006
1.350 0.018
1.450 0.054
1.550 0.157
1.650 0.433
1.750 1.151
1.850 2.936
1.940 6.961
1.990 8.993
2.050 7.147
2.150 4.867
2.250 3.312
2.350 2.253
2.450 1.531
2.550 1.041
2.650 0.707
2.750 0.480
2.850 0.326
2.950 0.222
3.050 0.151
3.150 0.102
3.250 0.069
3.350 0.047
3.450 0.032
3.550 0.022
3.650 0.015
3.750 0.010
3.850 0.007
3.950 0.005
4.050 0.003
4.150 0.002
4.250 0.001
4.350 0.001
4.450 0.001
4.550 0.000
4.650 0.000
4.750 0.000
4.850 0.000
4.950 0.000
5.050 0.000
5.150 0.000
5.250 0.000
5.350 0.000
5.450 0.000
5.550 0.000
5.650 0.000
5.750 0.000
5.850 0.000
5.950 0.000
6.050 0.000
6.150 0.000
0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000×10⁴
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00
6.50
J(EX)/DELEX VS. EPSLON


X*E-0 Y*E-3
1.350 0.001
1.439 0.002
1.530 0.006
1.624 0.019
1.719 0.056
1.816 0.161
1.914 0.442
2.012 1.186
2.111 2.983
2.200 6.634
2.250 9.041
2.310 7.177
2.406 4.882
2.509 3.319
2.609 2.256
2.709 1.533
2.809 1.041
2.909 0.707
3.009 0.481
3.109 0.326
3.209 0.222
3.309 0.151
3.409 0.102
3.509 0.069
3.609 0.047
3.709 0.032
3.809 0.022
3.909 0.015
4.009 0.010
4.109 0.007
4.209 0.005
4.309 0.003
4.409 0.002
4.509 0.001
4.609 0.001
4.709 0.001
4.809 0.000
4.909 0.000
5.009 0.000
5.109 0.000
5.209 0.000
5.309 0.000
5.409 0.000
5.509 0.000
5.609 0.000
5.709 0.000
5.809 0.000
5.909 0.000
6.009 0.000
6.109 0.000
6.209 0.000
6.309 0.000
6.409 0.000
0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000×10⁴
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00
6.50
J(ET)/DELET VS. EPST



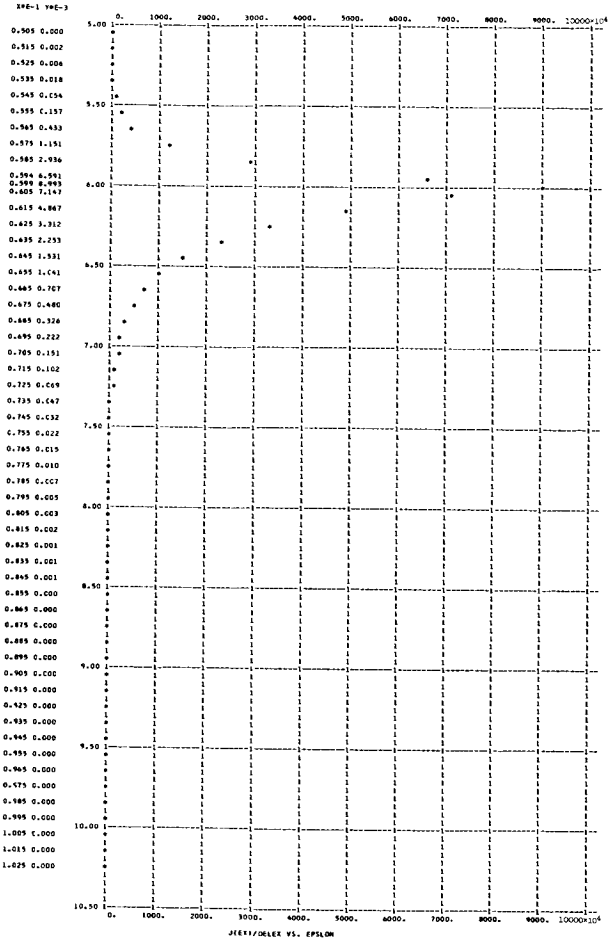


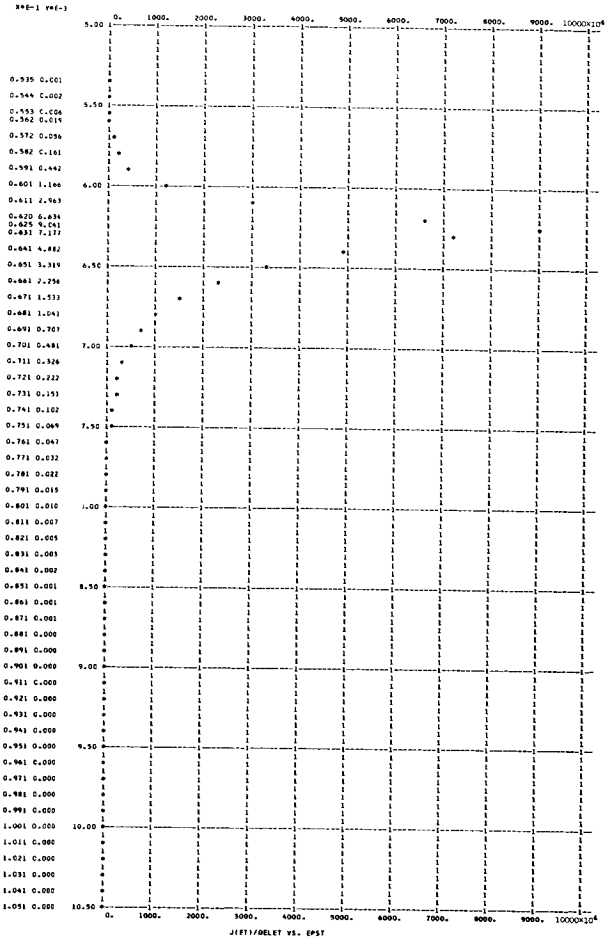
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 2.00 AMU = 5.00 EVMAX = 5.9800

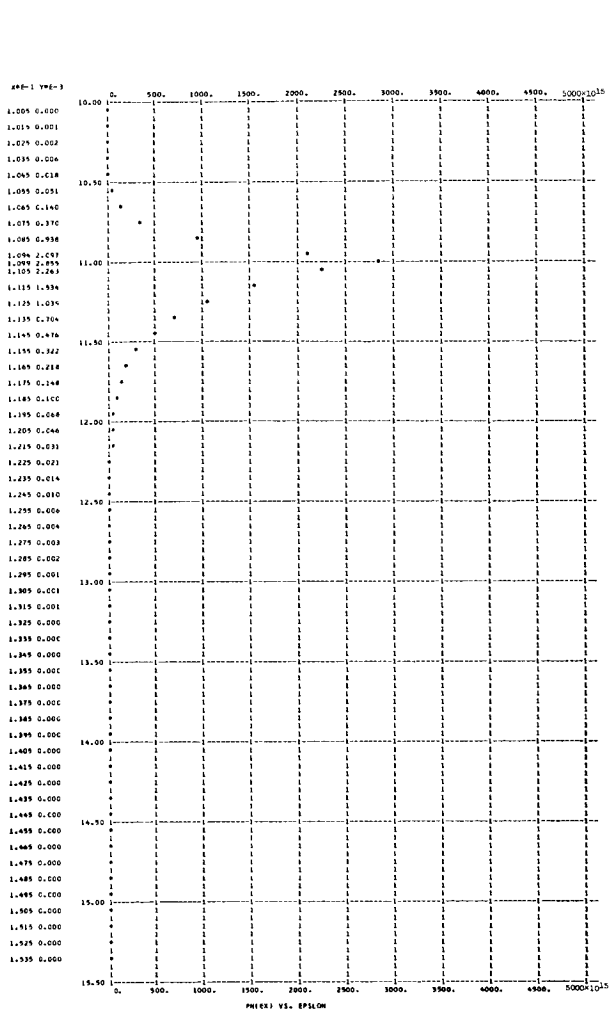
NEM = 0.50929836E 23 NEE = 0.14539477E 19 VXAV = 0.14676070E 09 KEXAV = 0.61264764E 01 KEXFL = 0.90002658E 09

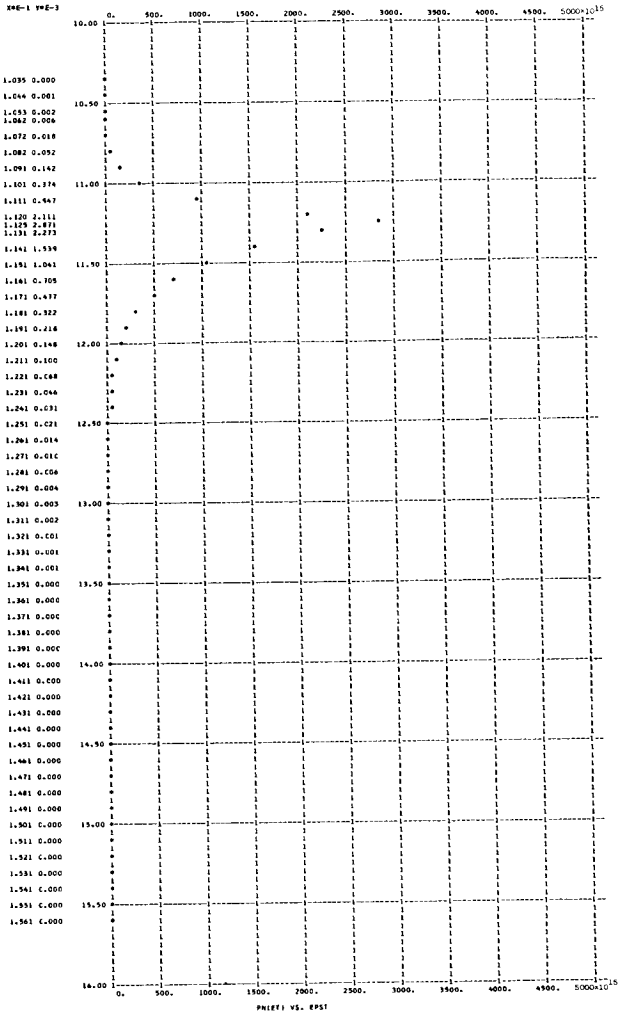
J = 0.341839E 08 KETAV= 0.638623E 01 KETFL= 0.938145E 09 TZERO = 0.494064E 05 TD = 0.203292E 04

Figure 3. - Continued.


J(ET)/DELEX VS. EPSLON


J(ET)/DELET VS. EPST



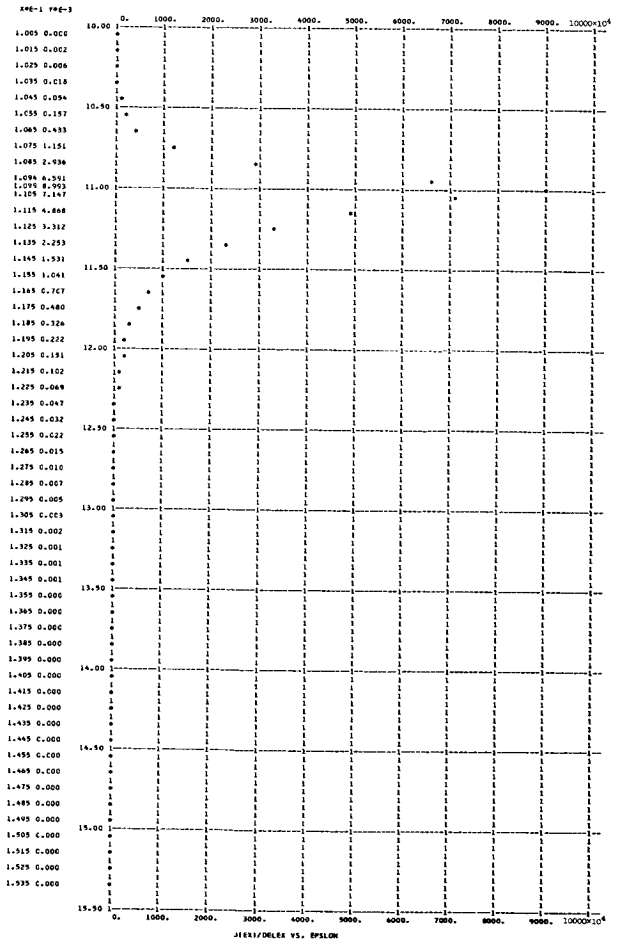


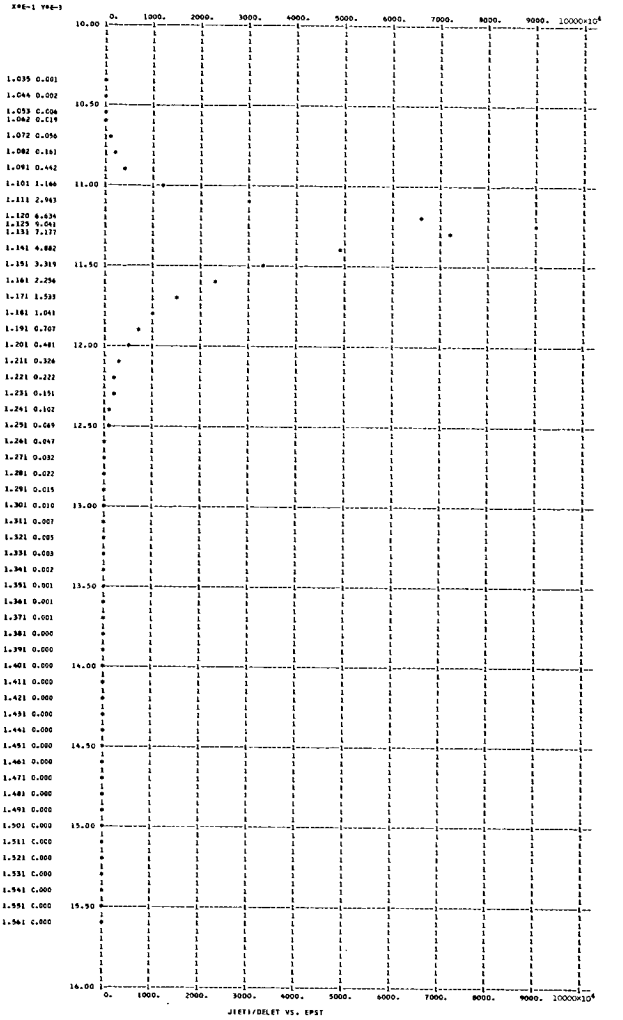
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 2.00 AMU = 10.00 EVMAX = 10.9800

NEM = 0.14377540E 24 NEE = 0.10785661E 19 VXAV = 0.19783799E 09 KEXAV = 0.11129169E 02 KEXFL = 0.22024535E 10

J = 0.341837E 08 KETAV= 0.113889E 02 KETFL= 0.225384E 10 TZERO = 0.881092E 05 TD = 0.202266E 04

Figure 3. - Continued.


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000*10^4
10.00
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
1.005 0.000
1.015 0.002
1.025 0.006
1.035 0.018
1.045 0.054
1.055 0.157
1.065 0.433
1.075 1.151
1.085 2.936
1.094 6.591
1.099 8.993
1.105 7.147
1.115 4.868
1.125 3.312
1.135 2.253
1.145 1.531
1.155 1.041
1.165 0.707
1.175 0.480
1.185 0.326
1.195 0.222
1.205 0.151
1.215 0.102
1.225 0.069
1.235 0.047
1.245 0.032
1.255 0.022
1.265 0.015
1.275 0.010
1.285 0.007
1.295 0.005
1.305 0.003
1.315 0.002
1.325 0.001
1.335 0.001
1.345 0.001
1.355 0.000
1.365 0.000
1.375 0.000
1.385 0.000
1.395 0.000
1.405 0.000
1.415 0.000
1.425 0.000
1.435 0.000
1.445 0.000
1.455 0.000
1.465 0.000
1.475 0.000
1.485 0.000
1.495 0.000
1.505 0.000
1.515 0.000
1.525 0.000
1.535 0.000
JIEXI/DELEX VS. EPSLON


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000*10^4
10.00
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
1.035 0.001
1.044 0.002
1.053 0.006
1.062 0.019
1.072 0.056
1.082 0.161
1.091 0.442
1.101 1.166
1.111 2.943
1.120 6.634
1.125 9.061
1.131 7.177
1.141 4.882
1.151 3.319
1.161 2.256
1.171 1.533
1.181 1.041
1.191 0.707
1.201 0.481
1.211 0.326
1.221 0.222
1.231 0.151
1.241 0.102
1.251 0.069
1.261 0.047
1.271 0.032
1.281 0.022
1.291 0.015
1.301 0.010
1.311 0.007
1.321 0.005
1.331 0.003
1.341 0.002
1.351 0.001
1.361 0.001
1.371 0.001
1.381 0.000
1.391 0.000
1.401 0.000
1.411 0.000
1.421 0.000
1.431 0.000
1.441 0.000
1.451 0.000
1.461 0.000
1.471 0.000
1.481 0.000
1.491 0.000
1.501 0.000
1.511 0.000
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1.541 0.000
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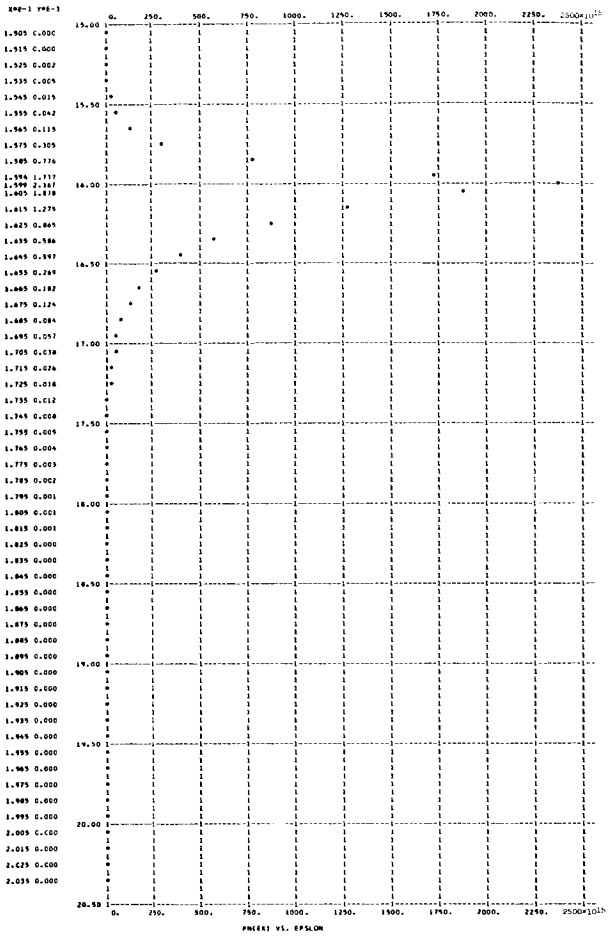
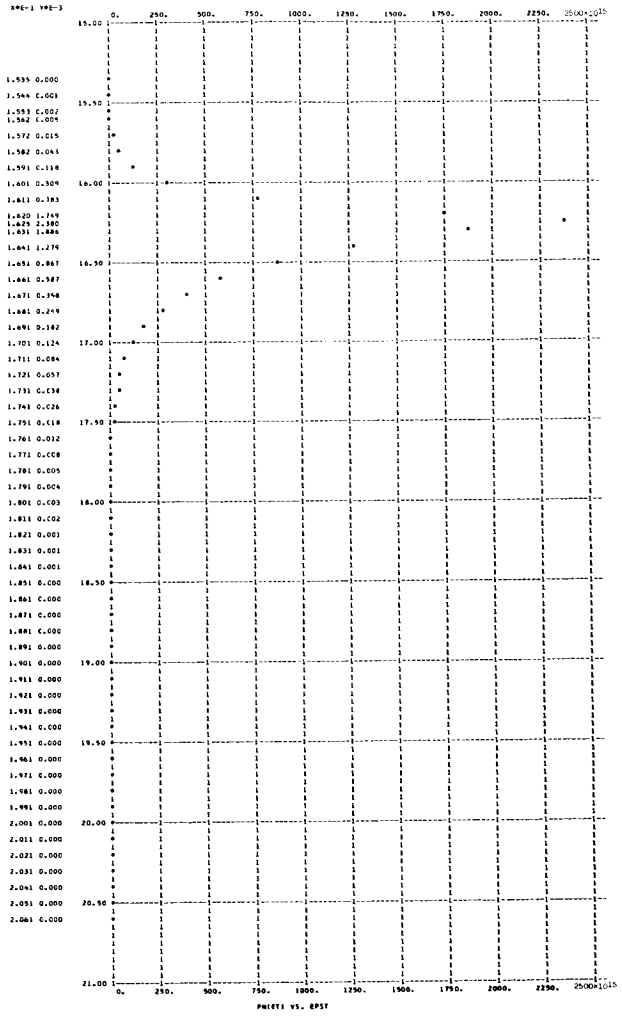
1.561 0.000
JIEYI/DELEY VS. EPSY



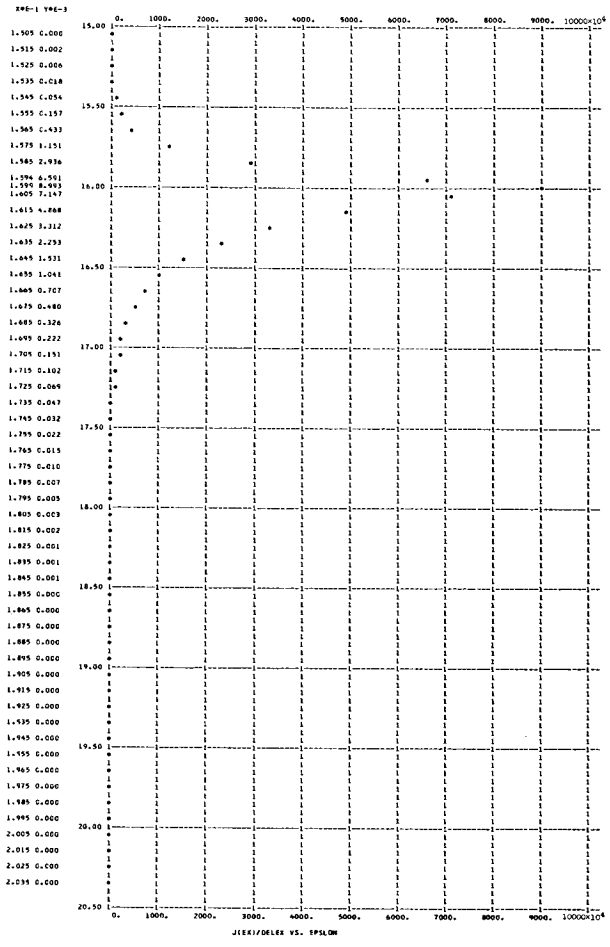


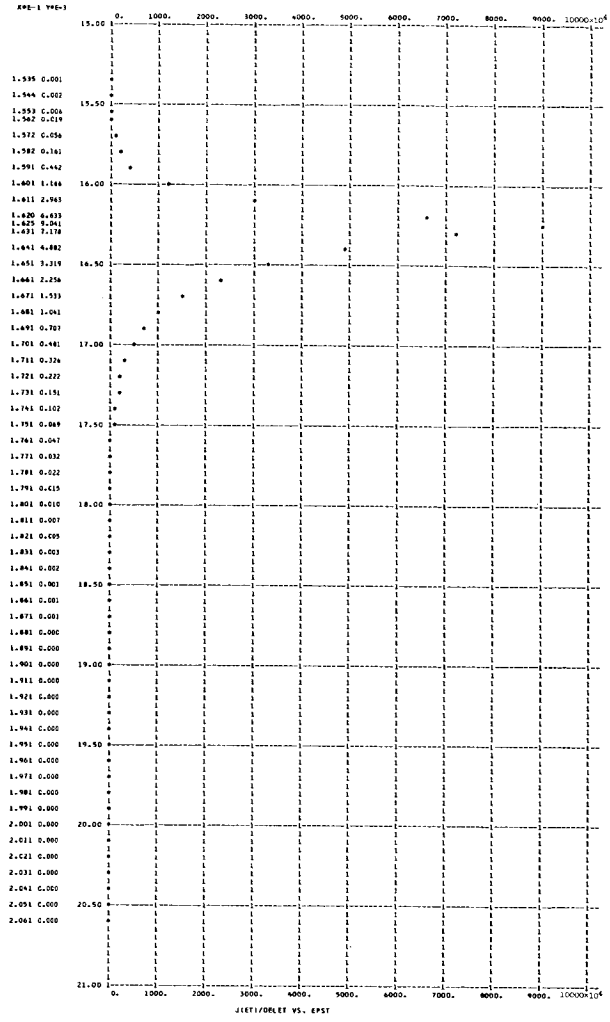
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 2.00 AMU = 15.00 EVMAX = 15.9800

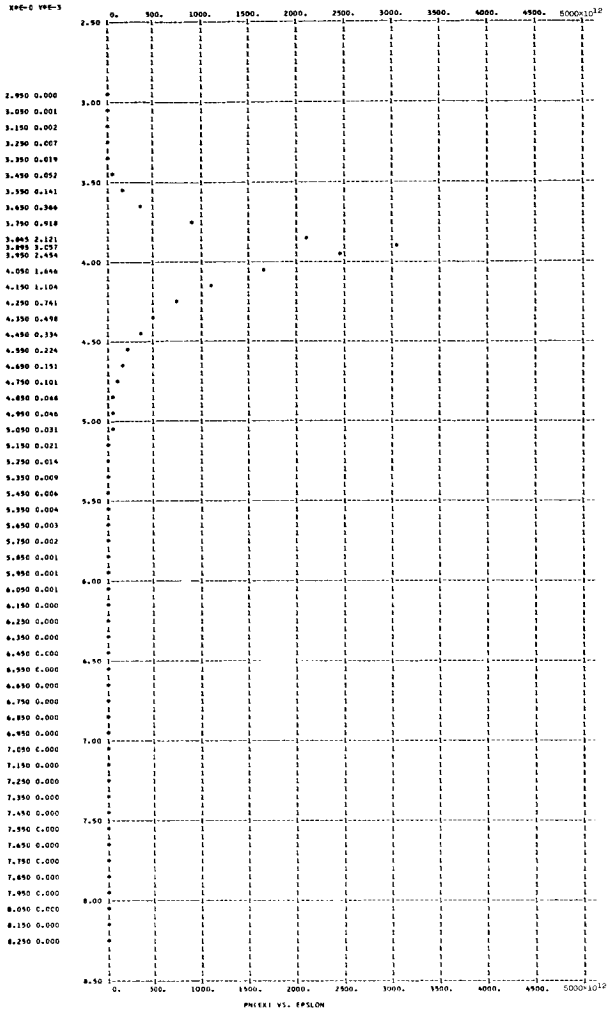
NEM = 0.26404823E 24 NEE = 0.89585945E 18 VXAV = 0.23818573E 09 KEXAV = 0.16130218E 02 KEXFL = 0.38425582E 10

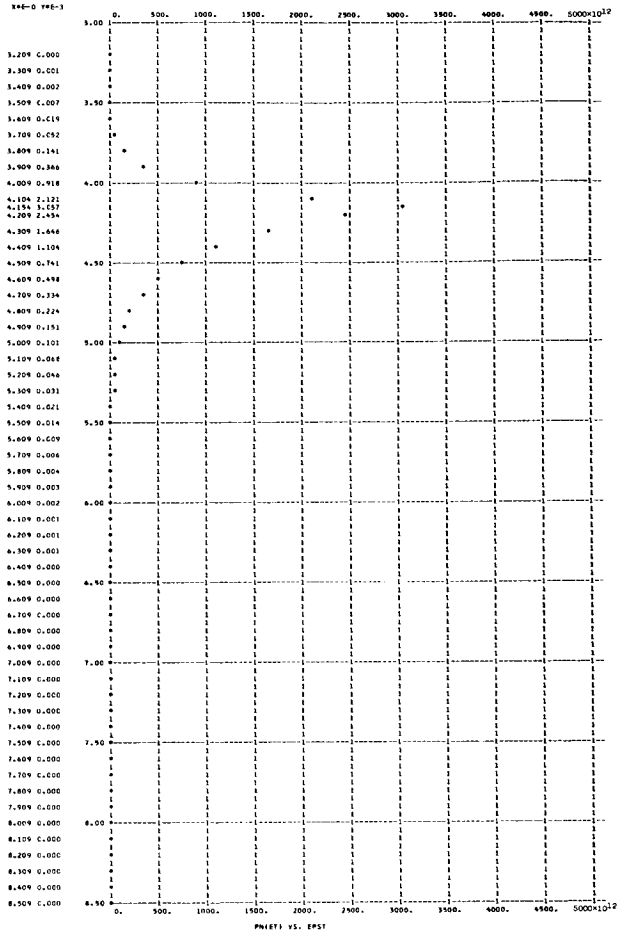
J = 0.341836E 08 KETAV= 0.163900E 02 KETFL= 0.390442E 10 TZERO = 0.126799E 06 TD = 0.201860E 04

Figure 3. - Continued.


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10⁴
15.00
15.50
16.00
16.50
17.00
17.50
18.00
18.50
19.00
19.50
20.00
20.50
1.505 0.000
1.515 0.002
1.525 0.006
1.535 0.018
1.545 0.054
1.555 0.157
1.565 0.433
1.575 1.151
1.585 2.936
1.594 6.501
1.599 8.993
1.605 7.167
1.615 4.868
1.625 3.312
1.635 2.253
1.645 1.531
1.655 1.041
1.665 0.707
1.675 0.480
1.685 0.326
1.695 0.222
1.705 0.151
1.715 0.102
1.725 0.069
1.735 0.047
1.745 0.032
1.755 0.022
1.765 0.015
1.775 0.010
1.785 0.007
1.795 0.005
1.805 0.003
1.815 0.002
1.825 0.001
1.835 0.001
1.845 0.001
1.855 0.000
1.865 0.000
1.875 0.000
1.885 0.000
1.895 0.000
1.905 0.000
1.915 0.000
1.925 0.000
1.935 0.000
1.945 0.000
1.955 0.000
1.965 0.000
1.975 0.000
1.985 0.000
1.995 0.000
2.005 0.000
2.015 0.000
2.025 0.000
2.035 0.000
J(EX)/DELEX VS. EPSLON


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10⁴
15.00
15.50
16.00
16.50
17.00
17.50
18.00
18.50
19.00
19.50
20.00
20.50
21.00
1.535 0.001
1.544 0.002
1.553 0.006
1.562 0.019
1.572 0.056
1.582 0.161
1.591 0.442
1.601 1.166
1.611 2.963
1.620 6.633
1.625 9.041
1.631 7.178
1.641 4.082
1.651 3.319
1.661 2.256
1.671 1.533
1.681 1.041
1.691 0.707
1.701 0.481
1.711 0.326
1.721 0.222
1.731 0.151
1.741 0.102
1.751 0.069
1.761 0.047
1.771 0.032
1.781 0.022
1.791 0.015
1.801 0.010
1.811 0.007
1.821 0.005
1.831 0.003
1.841 0.002
1.851 0.001
1.861 0.001
1.871 0.001
1.881 0.000
1.891 0.000
1.901 0.000
1.911 0.000
1.921 0.000
1.931 0.000
1.941 0.000
1.951 0.000
1.961 0.000
1.971 0.000
1.981 0.000
1.991 0.000
2.001 0.000
2.011 0.000
2.021 0.000
2.031 0.000
2.041 0.000
2.051 0.000
2.061 0.000
J(ET)/DELET VS. EPST



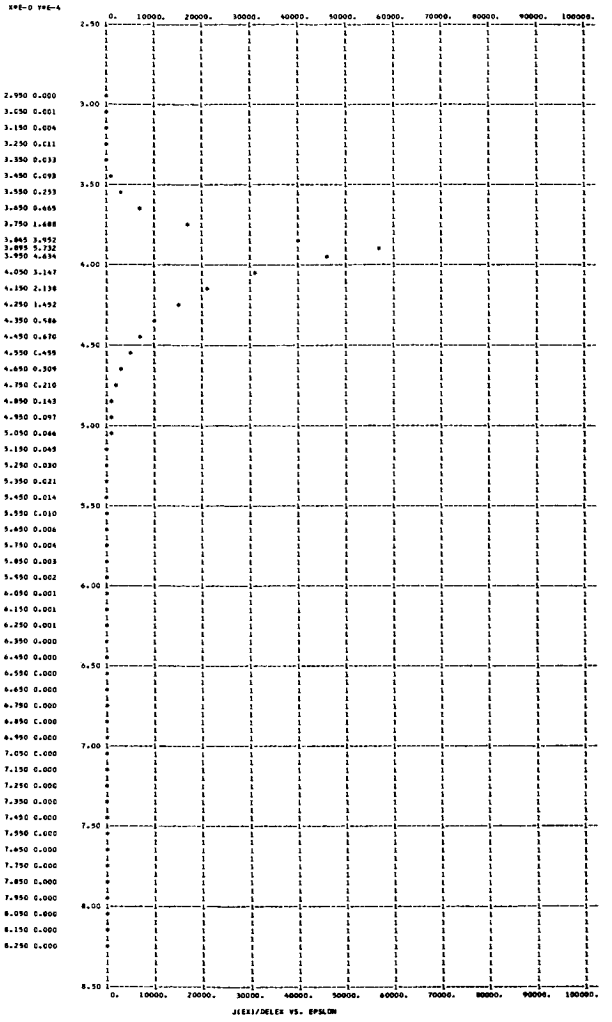


T = 0.30000000E 04 E = 0.10000002E 08 PHI = 4.00 AMU = 1.00 EVMAX = 3.8901

NEM = 0.49014194E 22 NEE = 0.11183196E 16 VXAV = 0.11901822E 09 KEXAV = 0.40316899E 01 KEXFL = 0.48093437E 09

J = 0.213227E C5 KETAV= 0.429021E 01 KETFL= 0.511703E 09 TZERO = 0.331908E 05 TD = 0.203470E 04

Figure 3. - Continued.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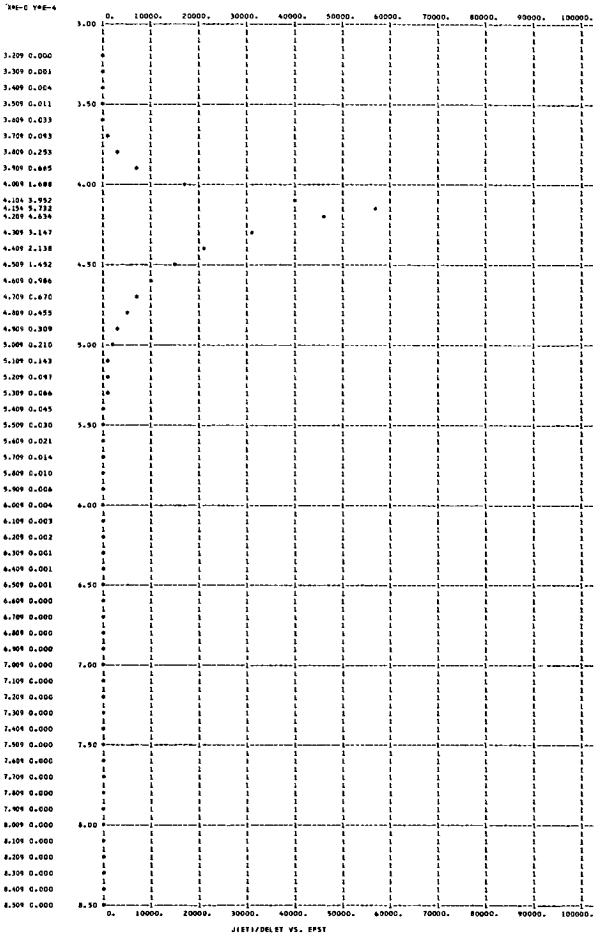
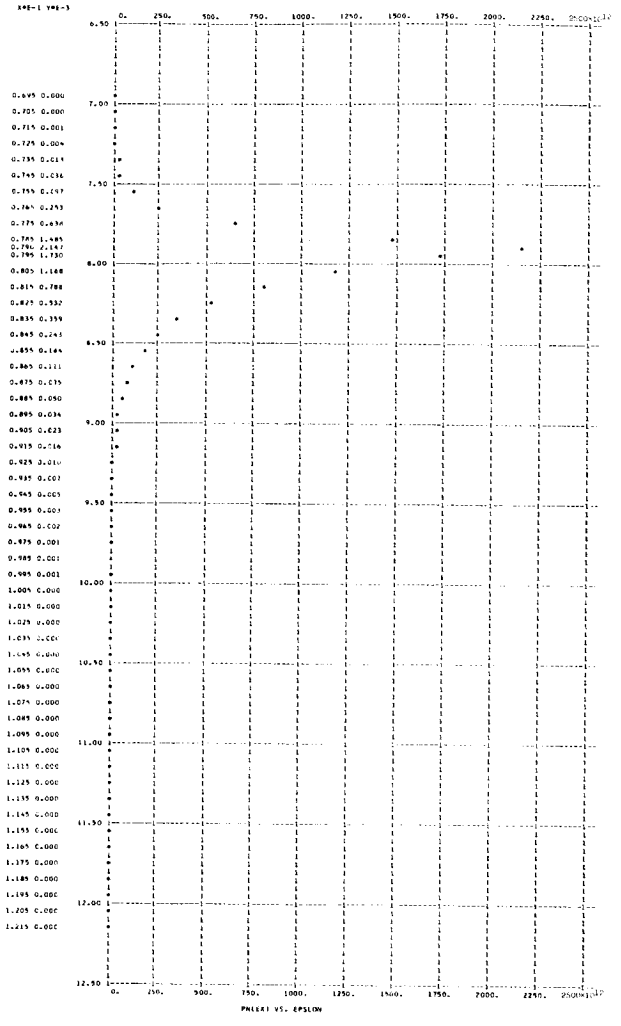
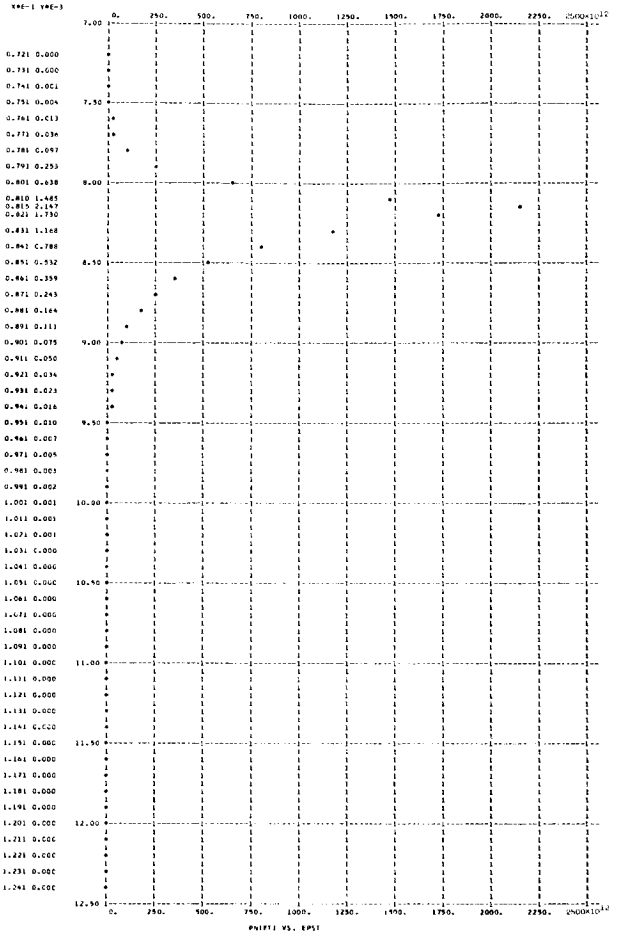
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
2.950 0.000
3.050 0.001
3.150 0.004
3.250 0.011
3.350 0.033
3.450 0.093
3.550 0.253
3.650 0.665
3.750 1.688
3.845 3.952
3.895 5.732
3.950 4.634
4.050 3.147
4.150 2.138
4.250 1.452
4.350 0.986
4.450 0.670
4.550 0.455
4.650 0.309
4.750 0.210
4.850 0.143
4.950 0.097
5.050 0.066
5.150 0.045
5.250 0.030
5.350 0.021
5.450 0.014
5.550 0.010
5.650 0.006
5.750 0.004
5.850 0.003
5.950 0.002
6.050 0.001
6.150 0.001
6.250 0.001
6.350 0.000
6.450 0.000
6.550 0.000
6.650 0.000
6.750 0.000
6.850 0.000
6.950 0.000
7.050 0.000
7.150 0.000
7.250 0.000
7.350 0.000
7.450 0.000
7.550 0.000
7.650 0.000
7.750 0.000
7.850 0.000
7.950 0.000
8.050 0.000
8.150 0.000
8.250 0.000
J(EXI/DELEX VS. EPSLON


X=E-0 Y=E-4
0. 10000. 20000. 30000. 40000. 50000. 60000. 70000. 80000. 90000. 100000.
3.00
3.50
4.00
4.50
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
3.209 0.000
3.309 0.001
3.409 0.004
3.509 0.011
3.609 0.033
3.709 0.093
3.809 0.253
3.909 0.665
4.009 1.688
4.104 3.952
4.154 5.732
4.209 4.634
4.309 3.147
4.409 2.138
4.509 1.452
4.609 0.986
4.709 0.670
4.809 0.455
4.909 0.309
5.009 0.210
5.109 0.143
5.209 0.097
5.309 0.066
5.409 0.045
5.509 0.030
5.609 0.021
5.709 0.014
5.809 0.010
5.909 0.006
6.009 0.004
6.109 0.003
6.209 0.002
6.309 0.001
6.409 0.001
6.509 0.001
6.609 0.000
6.709 0.000
6.809 0.000
6.909 0.000
7.009 0.000
7.109 0.000
7.209 0.000
7.309 0.000
7.409 0.000
7.509 0.000
7.609 0.000
7.709 0.000
7.809 0.000
7.909 0.000
8.009 0.000
8.109 0.000
8.209 0.000
8.309 0.000
8.409 0.000
8.509 0.000
J(EI)/DELEI VS. EPSI



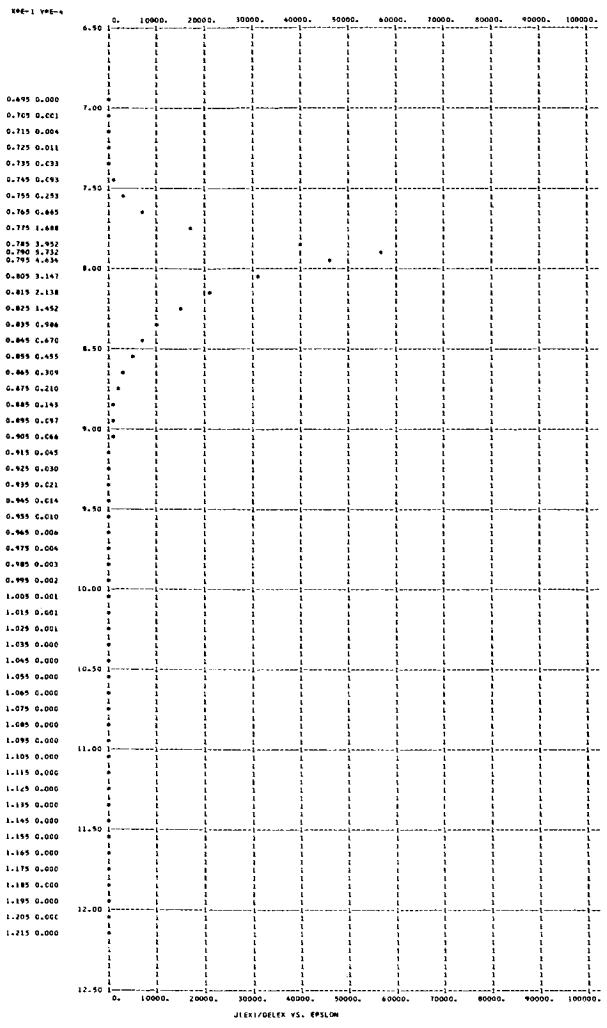


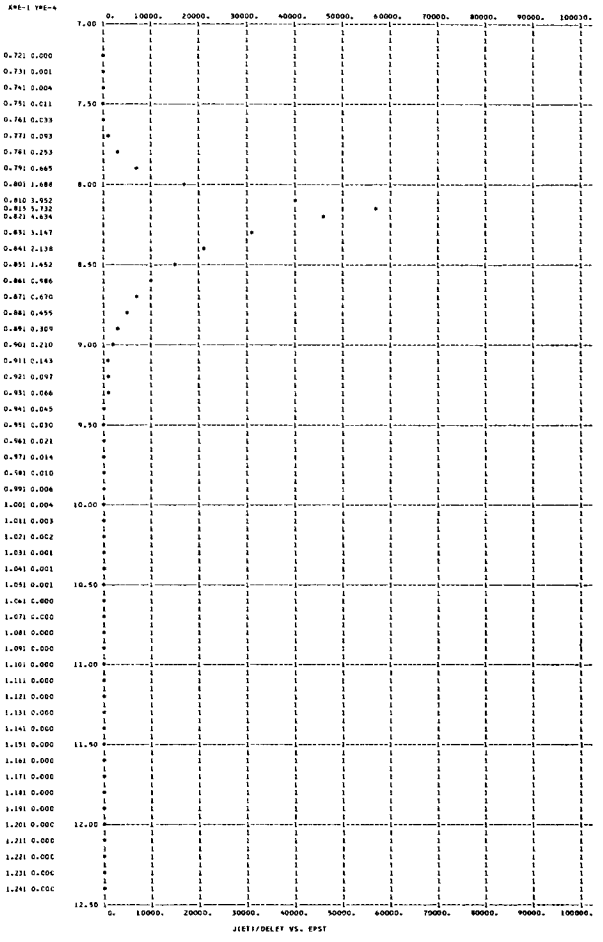
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 4.00 AMU = 5.00 EVMAX = 7.8901

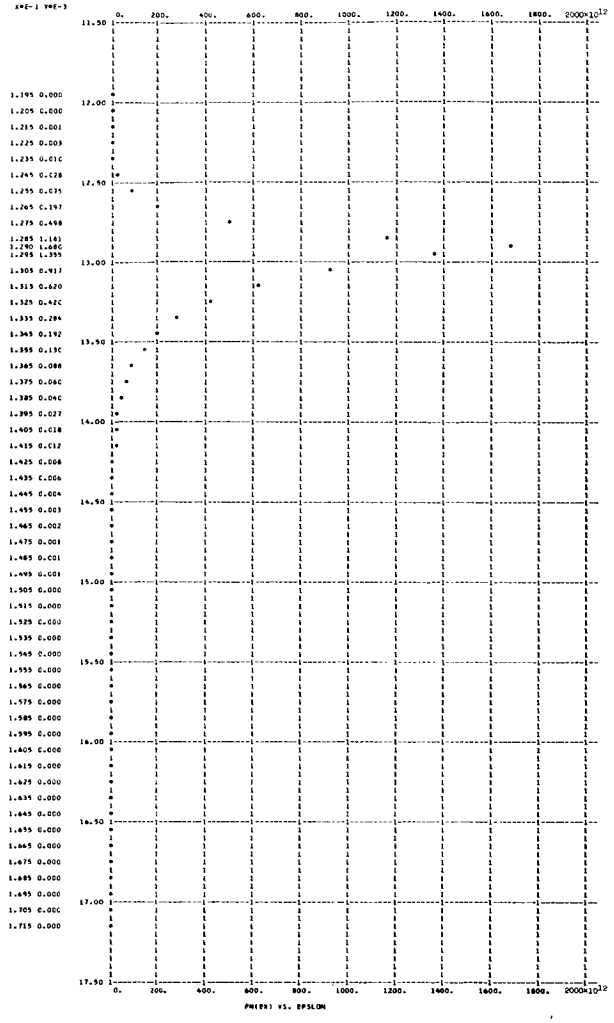
NEM = 0.50929833E 23 NEE = 0.79177494E 15 VXAV = 0.16810149E 09 KEXAV = 0.80361175E 01 KEXFL = 0.13516783E 10

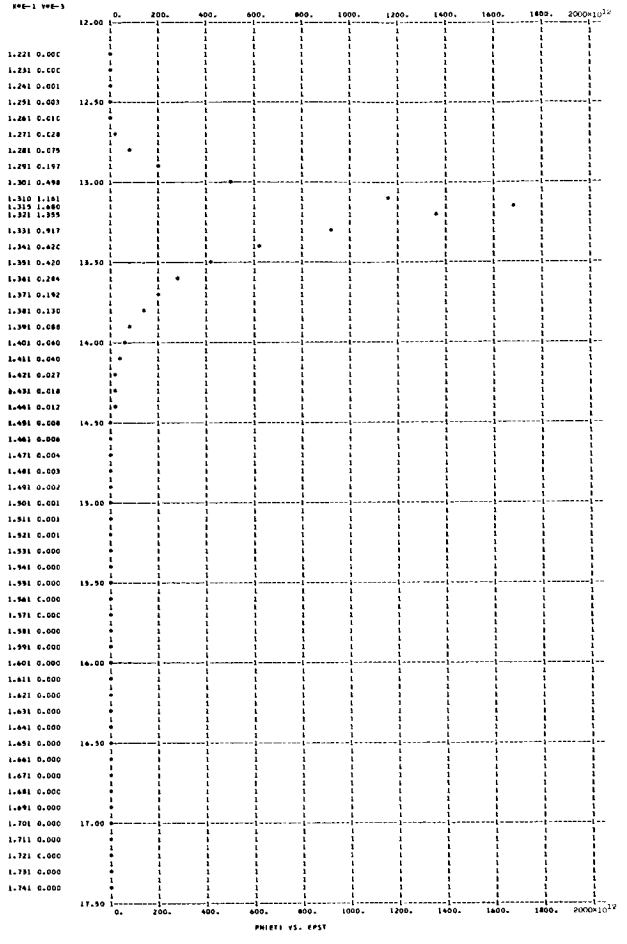
J = 0.213224E 05 KETAV= 0.829463E 01 KETFL= 0.139514E 10 TZERO = 0.641706E 05 TD = 0.201808E 04

Figure 3. - Continued.


0.
10000.
20000.
30000.
40000.
50000.
60000.
70000.
80000.
90000.
100000.
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
JIEXI/DELEX VS. EPSLON


0.
10000.
20000.
30000.
40000.
50000.
60000.
70000.
80000.
90000.
100000.
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
JIETI/DELEY VS. EPST



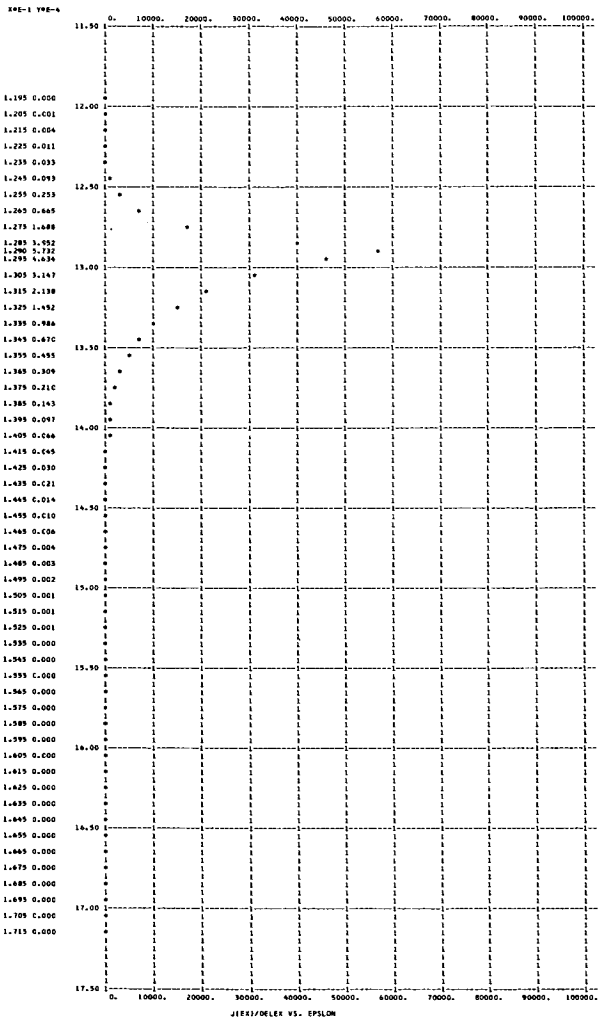


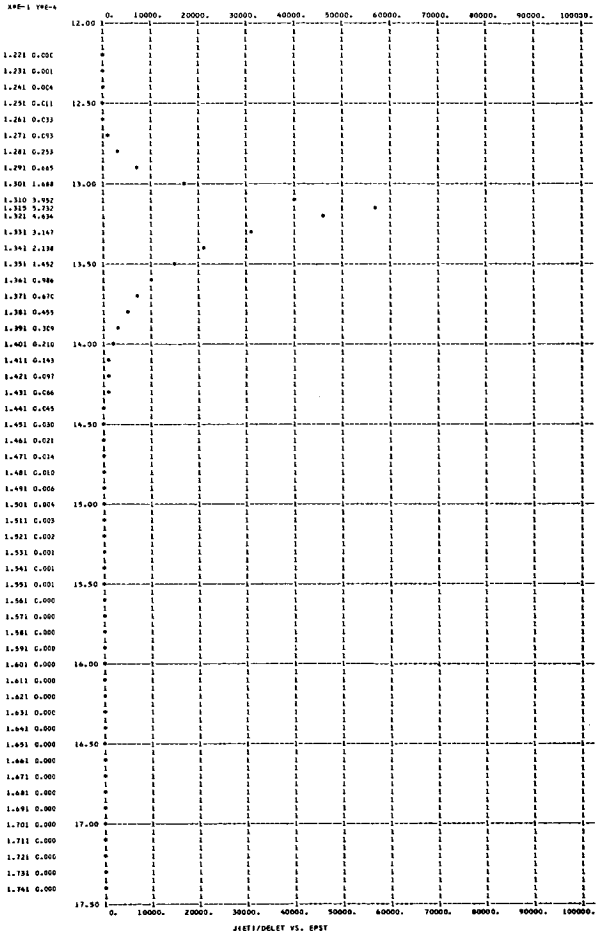
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 4.00 AMU = 10.00 EVMAX = 12.8901

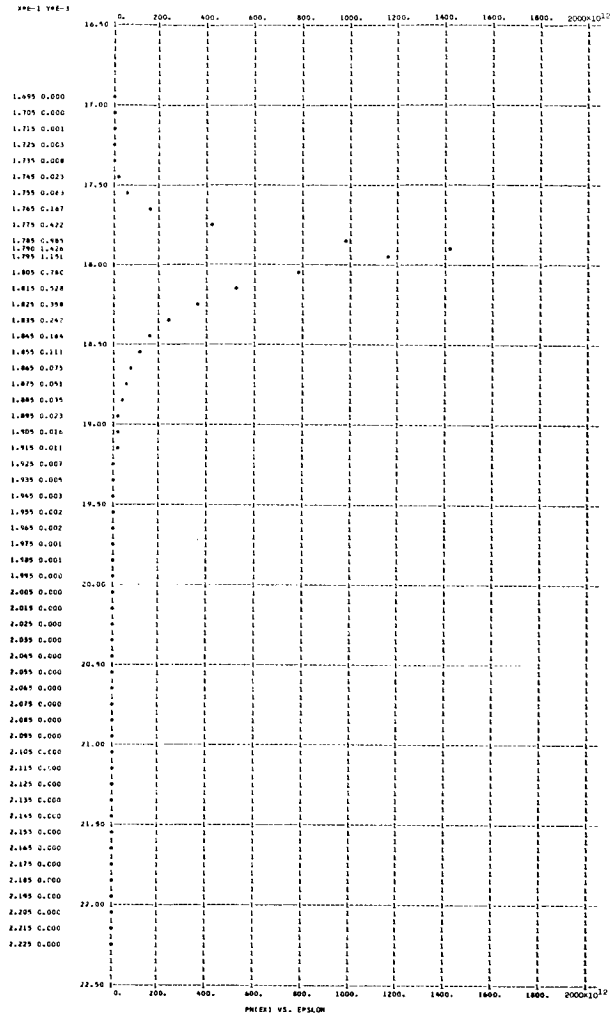
NEM = 0.14377540E 24 NEE = 0.62155717E 15 VXAV = 0.21413665E 09 KEXAV = 0.13037896E 02 KEXFL = 0.27925230E 10

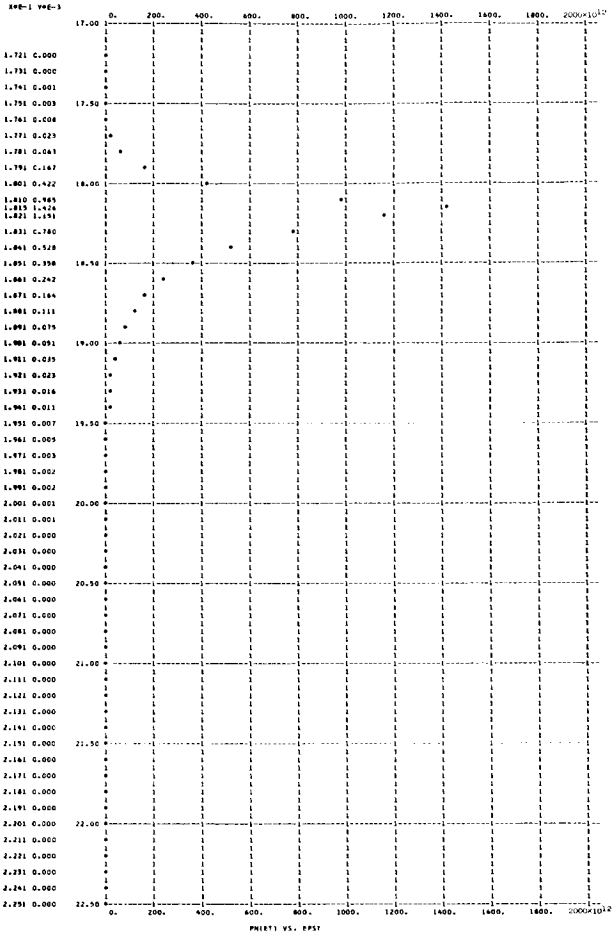
J = 0.213223E 05 KETAV= 0.132964E 02 KETFL= 0.284788E 10 TZERO = 0.102866E 06 TD = 0.201129E 04

Figure 3. - Continued.


X=E-1 Y=E-4
0. 10000. 20000. 30000. 40000. 50000. 60000. 70000. 80000. 90000. 100000.
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
16.50
17.00
17.50
1.195 0.000
1.205 0.001
1.215 0.004
1.225 0.011
1.235 0.033
1.245 0.093
1.255 0.253
1.265 0.665
1.275 1.688
1.285 3.952
1.290 5.732
1.295 4.634
1.305 3.147
1.315 2.138
1.325 1.452
1.335 0.986
1.345 0.670
1.355 0.455
1.365 0.309
1.375 0.210
1.385 0.143
1.395 0.097
1.405 0.066
1.415 0.045
1.425 0.030
1.435 0.021
1.445 0.014
1.455 0.010
1.465 0.006
1.475 0.004
1.485 0.003
1.495 0.002
1.505 0.001
1.515 0.001
1.525 0.001
1.535 0.000
1.545 0.000
1.555 0.000
1.565 0.000
1.575 0.000
1.585 0.000
1.595 0.000
1.605 0.000
1.615 0.000
1.625 0.000
1.635 0.000
1.645 0.000
1.655 0.000
1.665 0.000
1.675 0.000
1.685 0.000
1.695 0.000
1.705 0.000
1.715 0.000
J(EX)/DELEX VS. EPSLON


X=E-1 Y=E-4
0. 10000. 20000. 30000. 40000. 50000. 60000. 70000. 80000. 90000. 100000.
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
16.50
17.00
17.50
1.221 0.000
1.231 0.001
1.241 0.004
1.251 0.011
1.261 0.033
1.271 0.093
1.281 0.253
1.291 0.665
1.301 1.688
1.310 3.952
1.315 5.732
1.321 4.634
1.331 3.147
1.341 2.138
1.351 1.452
1.361 0.986
1.371 0.670
1.381 0.455
1.391 0.309
1.401 0.210
1.411 0.143
1.421 0.097
1.431 0.066
1.441 0.045
1.451 0.030
1.461 0.021
1.471 0.014
1.481 0.010
1.491 0.006
1.501 0.004
1.511 0.003
1.521 0.002
1.531 0.001
1.541 0.001
1.551 0.001
1.561 0.000
1.571 0.000
1.581 0.000
1.591 0.000
1.601 0.000
1.611 0.000
1.621 0.000
1.631 0.000
1.641 0.000
1.651 0.000
1.661 0.000
1.671 0.000
1.681 0.000
1.691 0.000
1.701 0.000
1.711 0.000
1.721 0.000
1.731 0.000
1.741 0.000
J(ET)/DELET VS. EPST



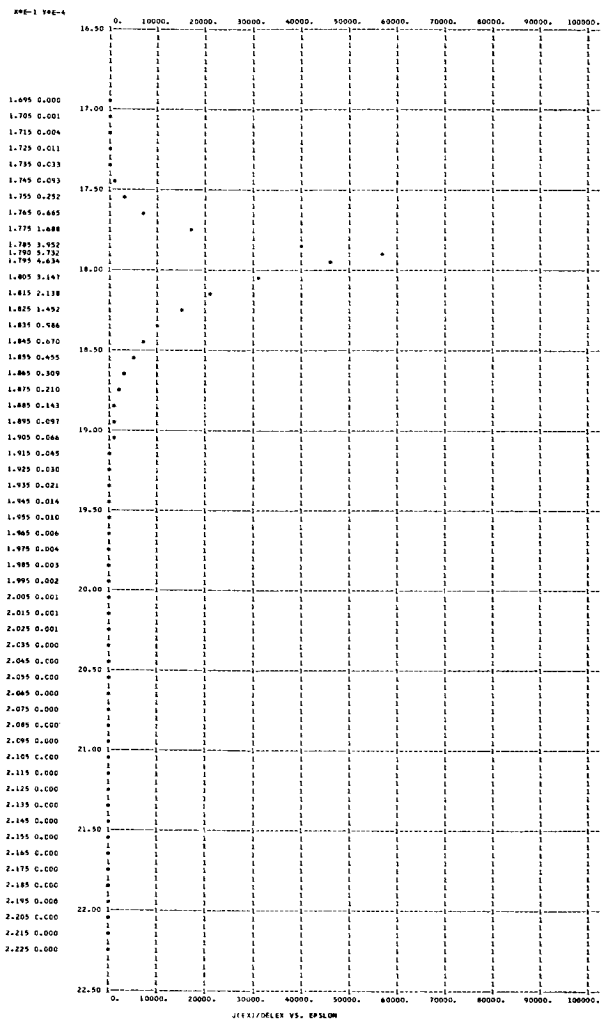


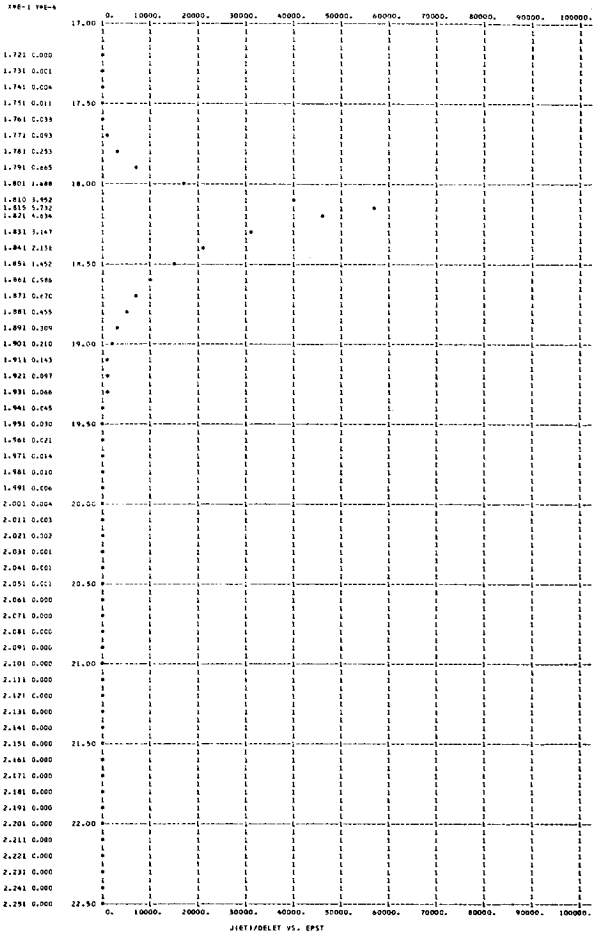
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 4.00 AMU = 15.00 EVMAX = 17.8901

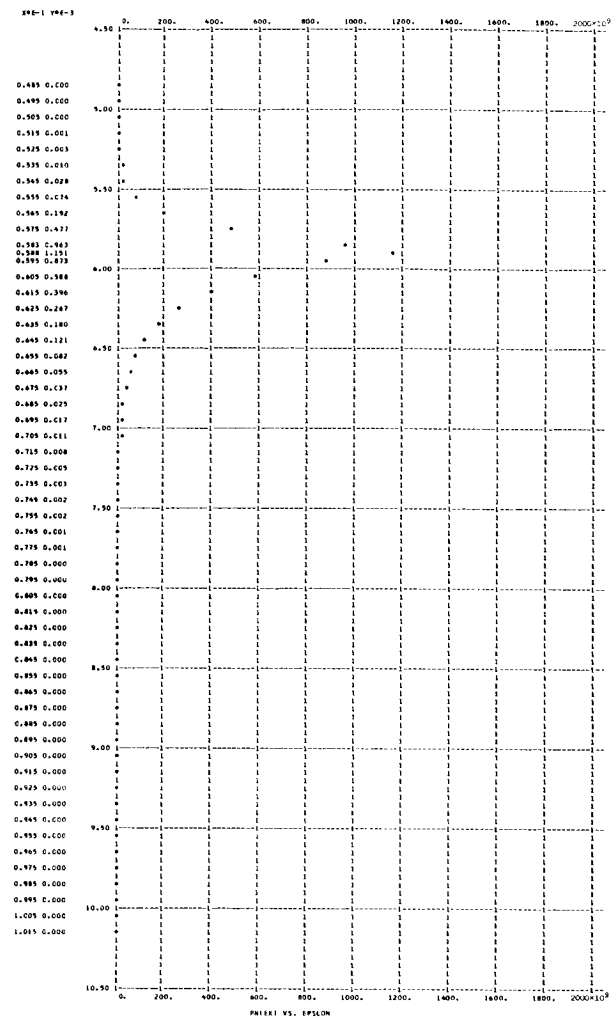
NEM = 0.26404823E 24 NEE = 0.52840853E 15 VXAV = 0.25188447E 09 KEXAV = 0.18038699E 02 KEXFL = 0.45442086E 10

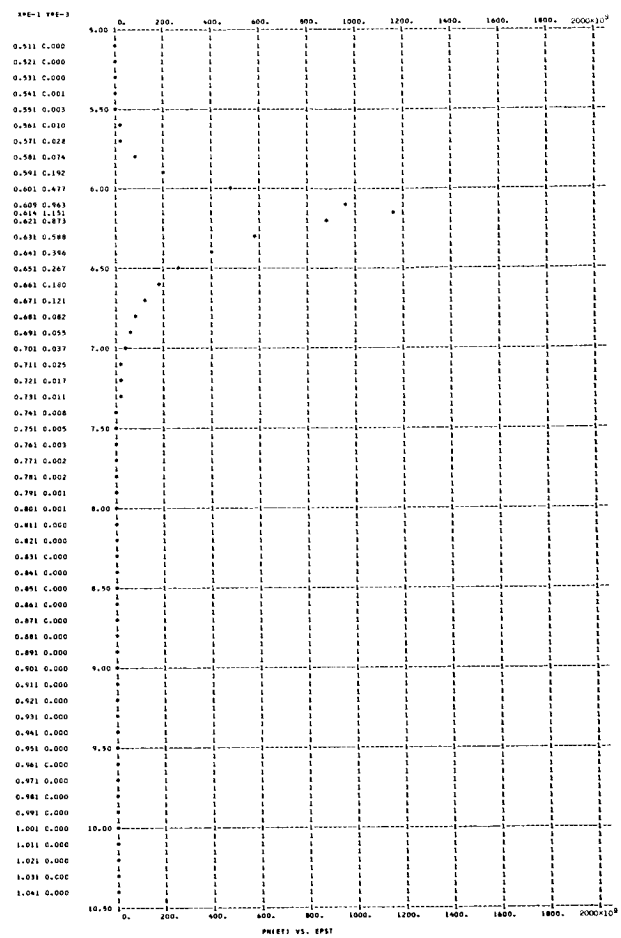
J = 0.213223E 05 KETAV= 0.182972E 02 KETFL= 0.460932E 10 TZERO = 0.141555E 06 TD = 0.200822E 04

Figure 3. - Continued.


J(EX)/DELEX VS. EPSLON


J(ET)/DELET VS. EPST



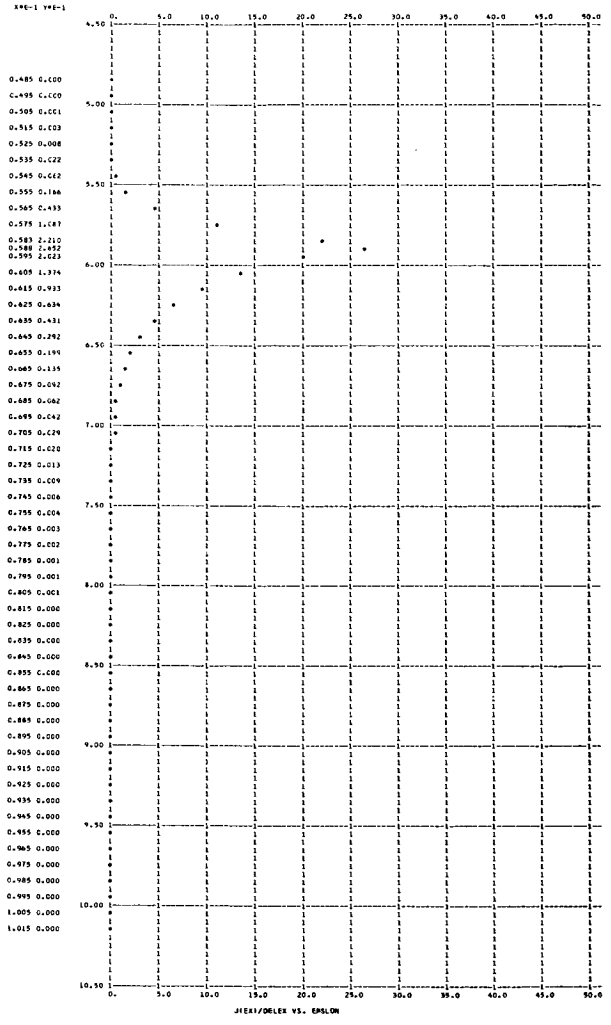


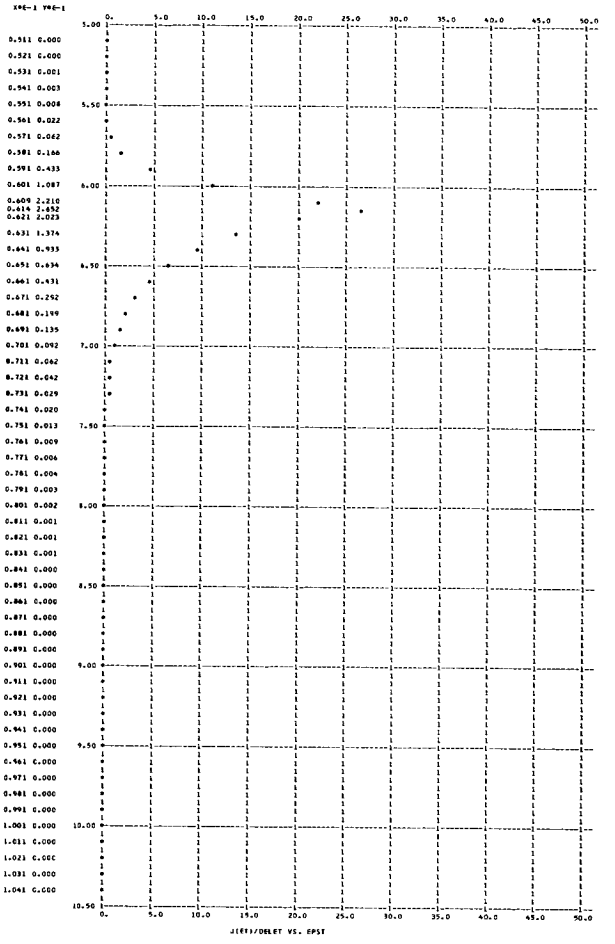
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 6.00 AMU = 1.00 EVMAX = 5.8601

NEM = 0.49014194E 22 NEE = 0.45003310E 12 VXAV = 0.14529040E 09 KEXAV = 0.60044567E 01 KEXFL = 0.87329906E 09

J = 0.104748E 02 KETAV= 0.626297E 01 KETFL= 0.910859E 09 TZERO = 0.484529E 05 TD = 0.202385E 04

Figure 3. - Continued.


X*E-1 Y*E-1
0. 5.0 10.0 15.0 20.0 25.0 30.0 35.0 40.0 45.0 50.0
4.50
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
0.485 0.000
0.495 0.000
0.505 0.001
0.515 0.003
0.525 0.008
0.535 0.022
0.545 0.062
0.555 0.166
0.565 0.433
0.575 1.087
0.583 2.210
0.588 2.652
0.595 2.023
0.605 1.374
0.615 0.933
0.625 0.634
0.635 0.431
0.645 0.292
0.655 0.199
0.665 0.135
0.675 0.092
0.685 0.062
0.695 0.042
0.705 0.029
0.715 0.020
0.725 0.013
0.735 0.009
0.745 0.006
0.755 0.004
0.765 0.003
0.775 0.002
0.785 0.001
0.795 0.001
0.805 0.001
0.815 0.000
0.825 0.000
0.835 0.000
0.845 0.000
0.855 0.000
0.865 0.000
0.875 0.000
0.885 0.000
0.895 0.000
0.905 0.000
0.915 0.000
0.925 0.000
0.935 0.000
0.945 0.000
0.955 0.000
0.965 0.000
0.975 0.000
0.985 0.000
0.995 0.000
1.005 0.000
1.015 0.000
J(ER)/DELER VS. EPSLON


X*E-1 Y*E-1
0. 5.0 10.0 15.0 20.0 25.0 30.0 35.0 40.0 45.0 50.0
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
0.511 0.000
0.521 0.000
0.531 0.001
0.541 0.003
0.551 0.008
0.561 0.022
0.571 0.062
0.581 0.166
0.591 0.433
0.601 1.087
0.609 2.210
0.614 2.652
0.621 2.023
0.631 1.374
0.641 0.933
0.651 0.634
0.661 0.431
0.671 0.292
0.681 0.199
0.691 0.135
0.701 0.092
0.711 0.062
0.721 0.042
0.731 0.029
0.741 0.020
0.751 0.013
0.761 0.009
0.771 0.006
0.781 0.004
0.791 0.003
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0.811 0.001
0.821 0.001
0.831 0.001
0.841 0.000
0.851 0.000
0.861 0.000
0.871 0.000
0.881 0.000
0.891 0.000
0.901 0.000
0.911 0.000
0.921 0.000
0.931 0.000
0.941 0.000
0.951 0.000
0.961 0.000
0.971 0.000
0.981 0.000
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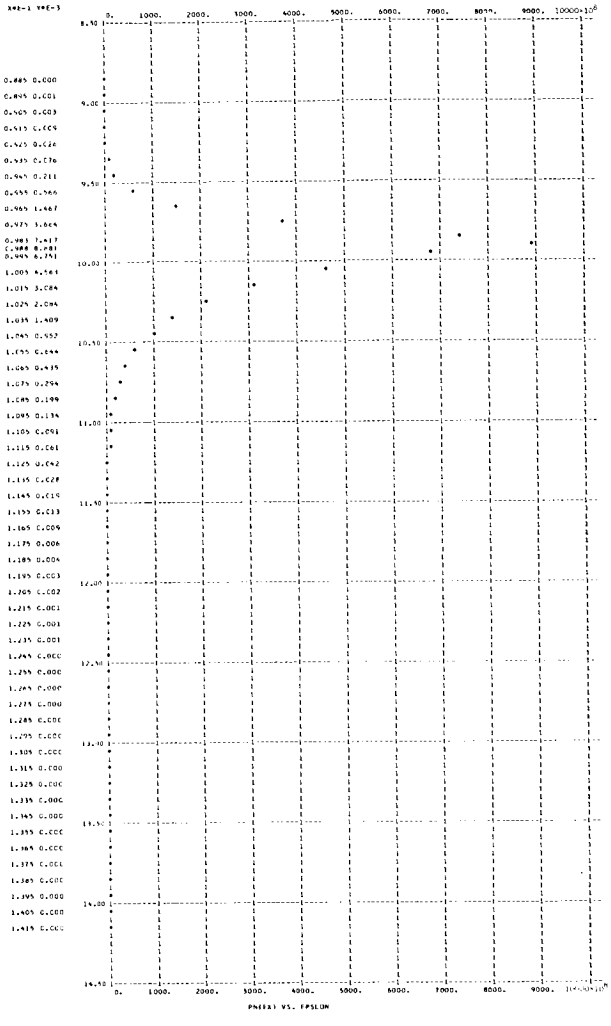
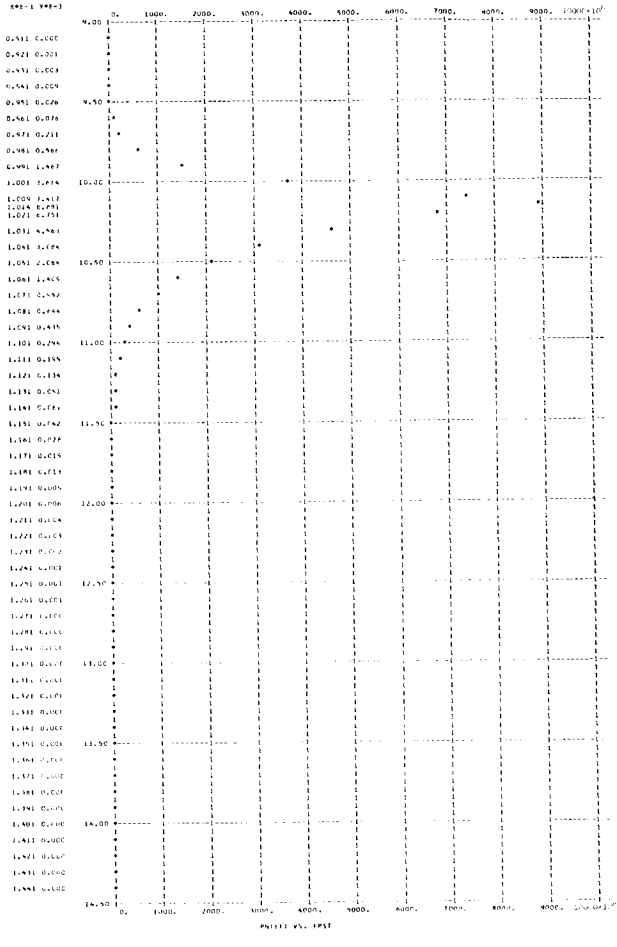
1.041 0.000
J(ET)/DELET VS. EPST



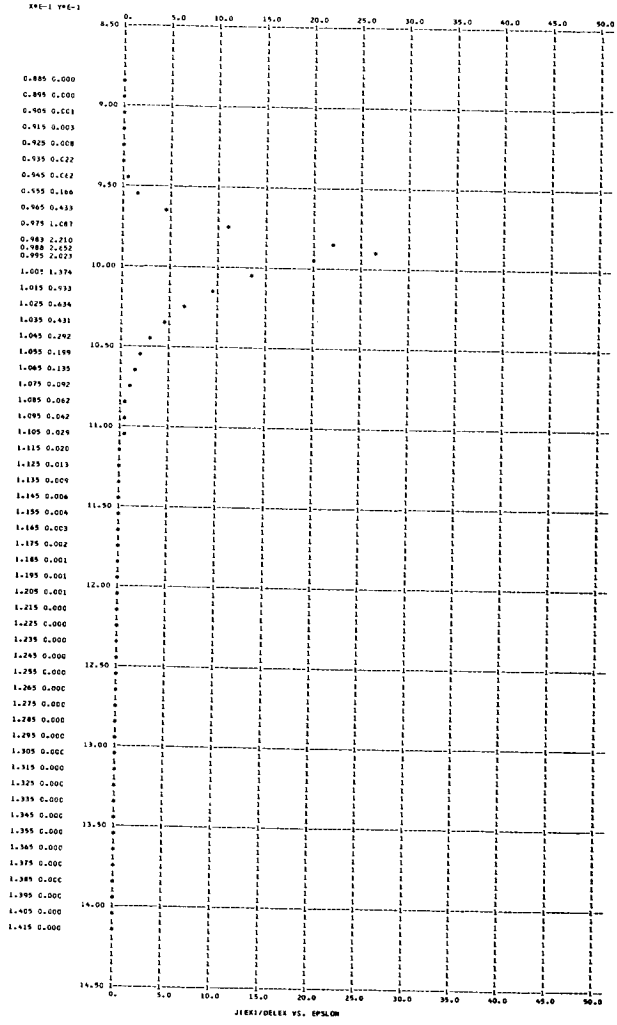


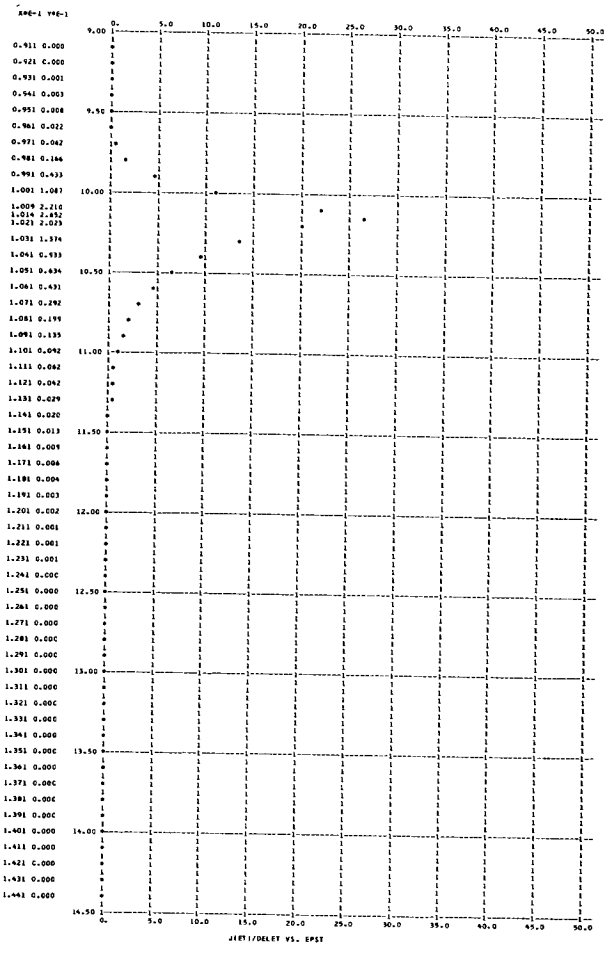
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 6.00 AMU = 5.00 EVMAX = 9.8601

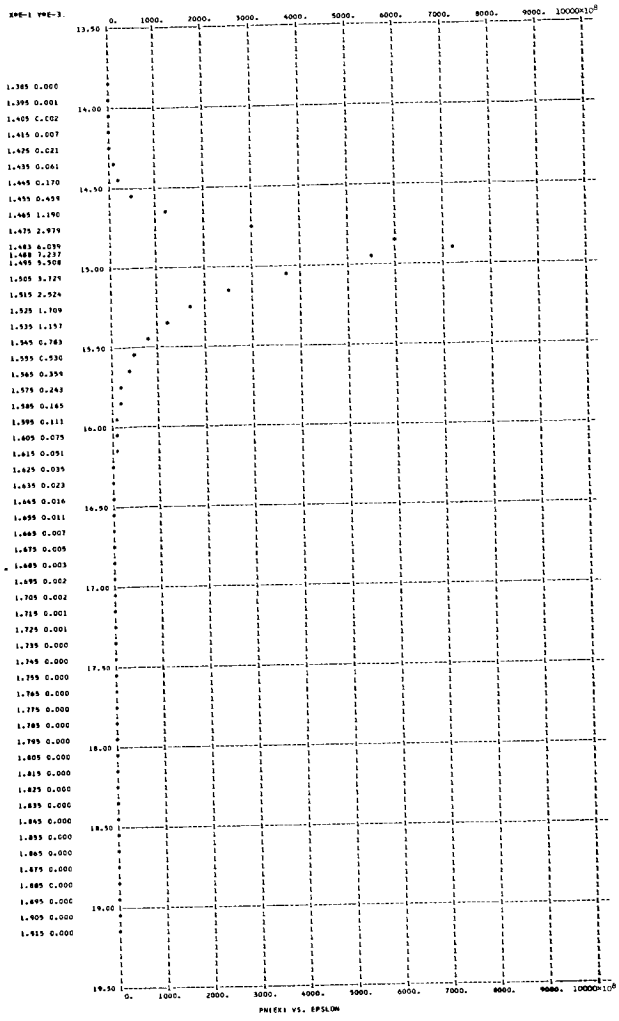
NEM = 0.50929833E 23 NEE = 0.34854489E 12 VXAV = 0.18759459E 09 KEXAV = 0.10006896E 02 KEXFL = 0.18779556E 10

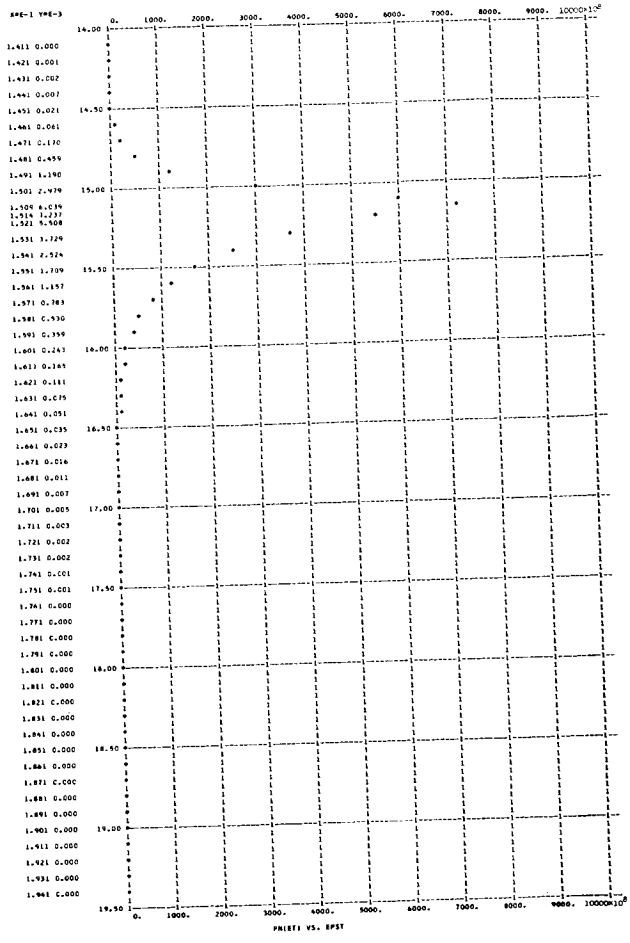
J = 0.104747E 02 KETAV= 0.102654E 02 KETFL= 0.192645E 10 TZERO = 0.794173E 05 TD = 0.201459E 04

Figure 3. - Continued.


JIEKI/DELEK VS. EPSLON


JIET1/DELET VS. EPST



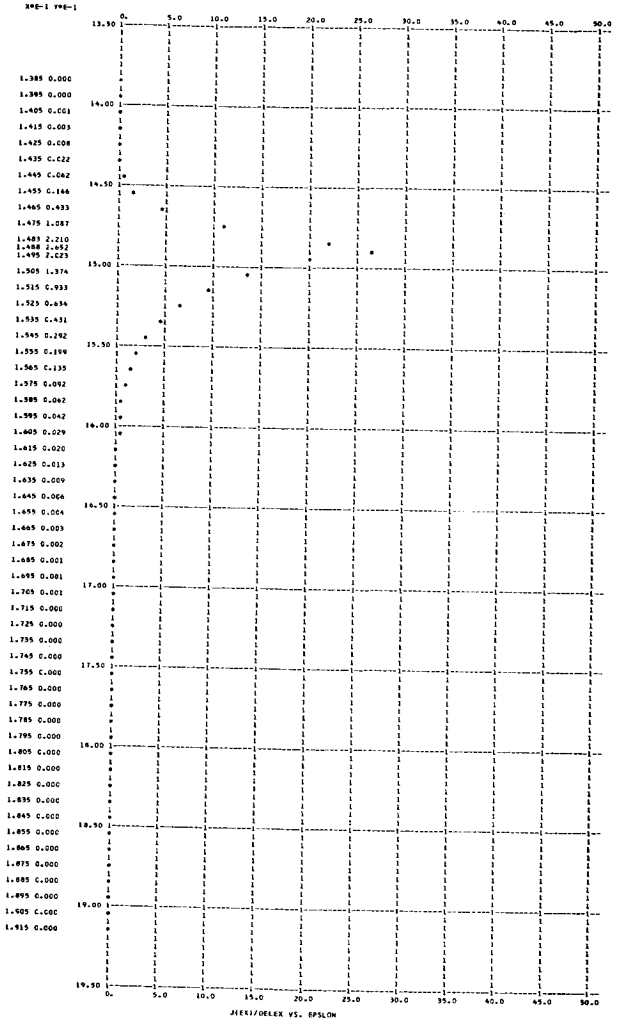


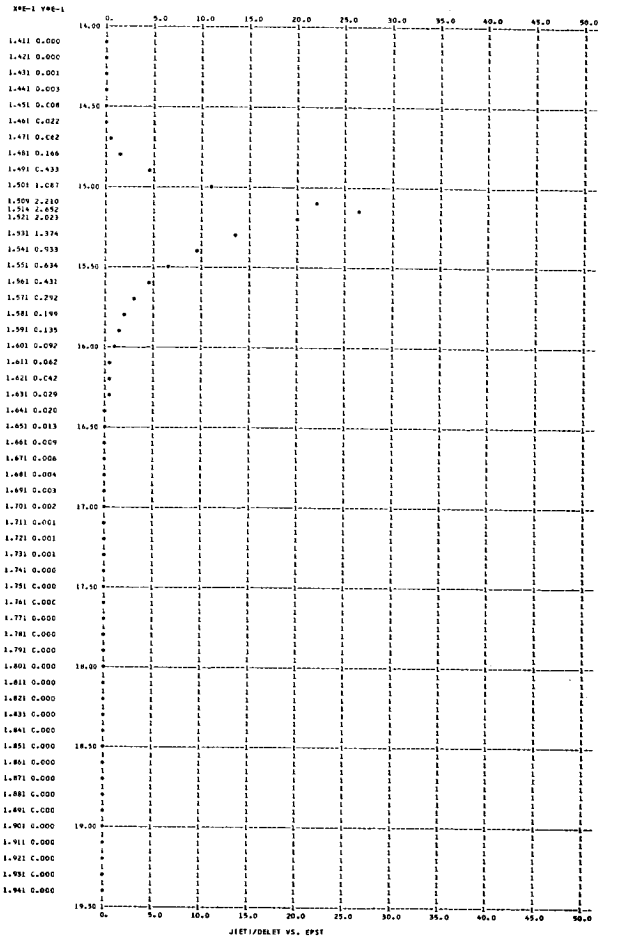
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 6.00 AMU = 10.00 EVMAX = 14.8601

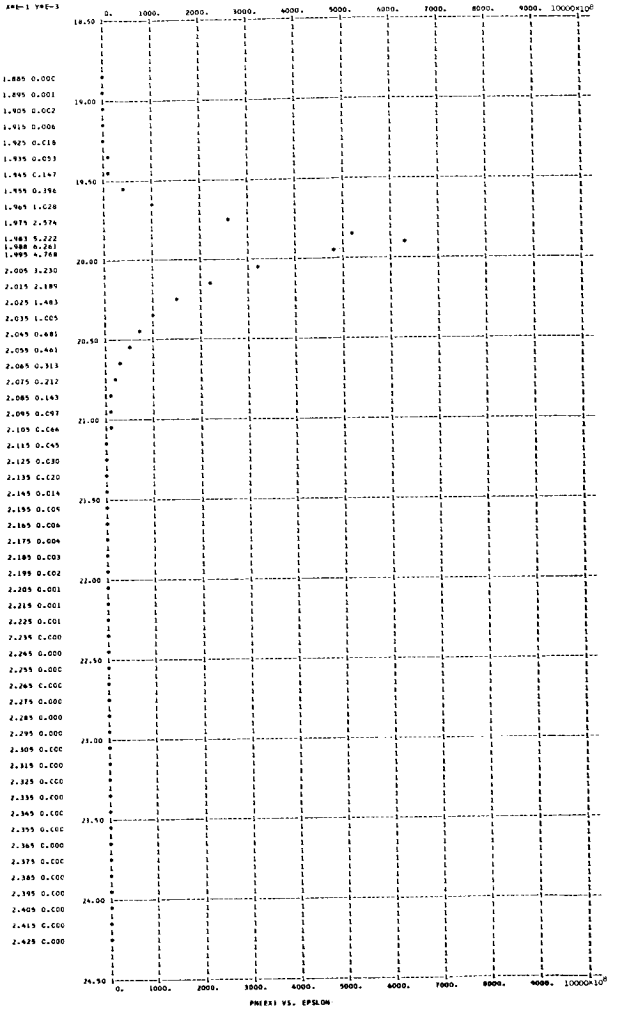
NEM = 0.14377540E 24 NEE = 0.28459127E 12 VXAV = 0.22975063E 09 KEXAV = 0.15008147E 02 KEXFL = 0.34487209E 10

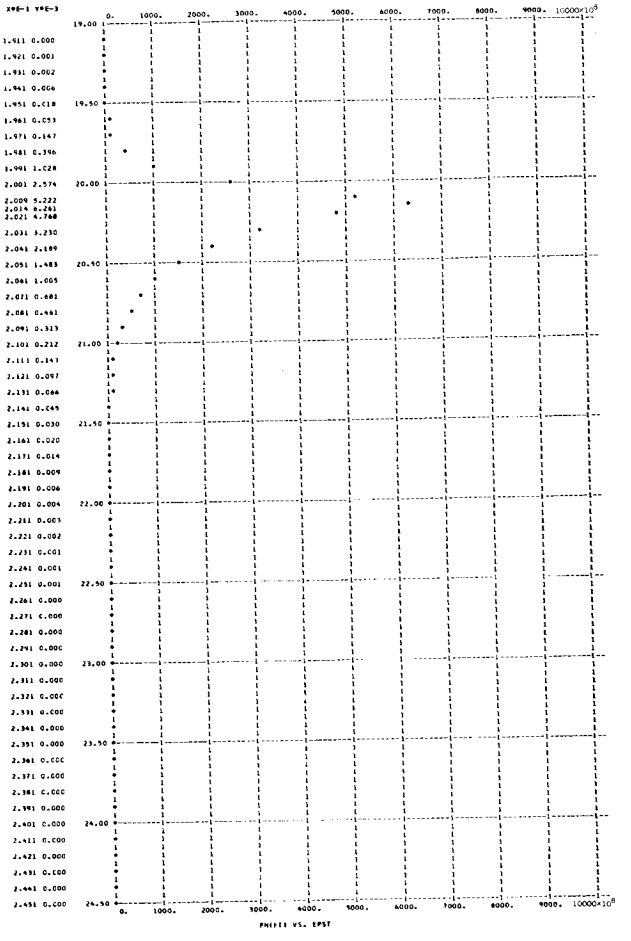
J = 0.104747E 02 KETAV= 0.152667E 02 KETFL= 0.350811E 10 TZERO = 0.118109E 06 TD = 0.200981E 04

Figure 3. - Continued.


XPE-1 YPE-1
0. 5.0 10.0 15.0 20.0 25.0 30.0 35.0 40.0 45.0 50.0
13.50
14.00
14.50
15.00
15.50
16.00
16.50
17.00
17.50
18.00
18.50
19.00
19.50
1.385 0.000
1.395 0.000
1.405 0.001
1.415 0.003
1.425 0.008
1.435 0.022
1.445 0.062
1.455 0.166
1.465 0.433
1.475 1.087
1.483 2.210
1.488 2.652
1.495 2.023
1.505 1.374
1.515 0.933
1.525 0.634
1.535 0.431
1.545 0.292
1.555 0.199
1.565 0.135
1.575 0.092
1.585 0.062
1.595 0.042
1.605 0.029
1.615 0.020
1.625 0.013
1.635 0.009
1.645 0.006
1.655 0.004
1.665 0.003
1.675 0.002
1.685 0.001
1.695 0.001
1.705 0.001
1.715 0.000
1.725 0.000
1.735 0.000
1.745 0.000
1.755 0.000
1.765 0.000
1.775 0.000
1.785 0.000
1.795 0.000
1.805 0.000
1.815 0.000
1.825 0.000
1.835 0.000
1.845 0.000
1.855 0.000
1.865 0.000
1.875 0.000
1.885 0.000
1.895 0.000
1.905 0.000
1.915 0.000
JEET/DELEX VS. EPSLON


XPE-1 YPE-1
0. 5.0 10.0 15.0 20.0 25.0 30.0 35.0 40.0 45.0 50.0
14.00
14.50
15.00
15.50
16.00
16.50
17.00
17.50
18.00
18.50
19.00
19.50
1.411 0.000
1.421 0.000
1.431 0.001
1.441 0.003
1.451 0.008
1.461 0.022
1.471 0.062
1.481 0.166
1.491 0.433
1.501 1.087
1.509 2.210
1.514 2.652
1.521 2.023
1.531 1.374
1.541 0.933
1.551 0.634
1.561 0.431
1.571 0.292
1.581 0.199
1.591 0.135
1.601 0.092
1.611 0.062
1.621 0.042
1.631 0.029
1.641 0.020
1.651 0.013
1.661 0.009
1.671 0.006
1.681 0.004
1.691 0.003
1.701 0.002
1.711 0.001
1.721 0.001
1.731 0.001
1.741 0.000
1.751 0.000
1.761 0.000
1.771 0.000
1.781 0.000
1.791 0.000
1.801 0.000
1.811 0.000
1.821 0.000
1.831 0.000
1.841 0.000
1.851 0.000
1.861 0.000
1.871 0.000
1.881 0.000
1.891 0.000
1.901 0.000
1.911 0.000
1.921 0.000
1.931 0.000
1.941 0.000
JEET/DELEY VS. EPST



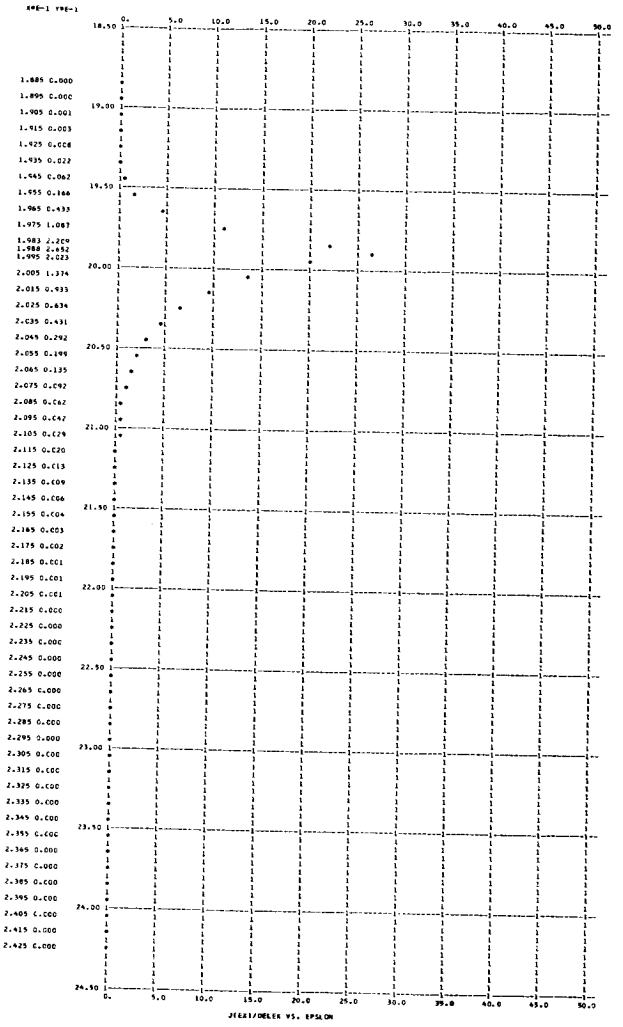


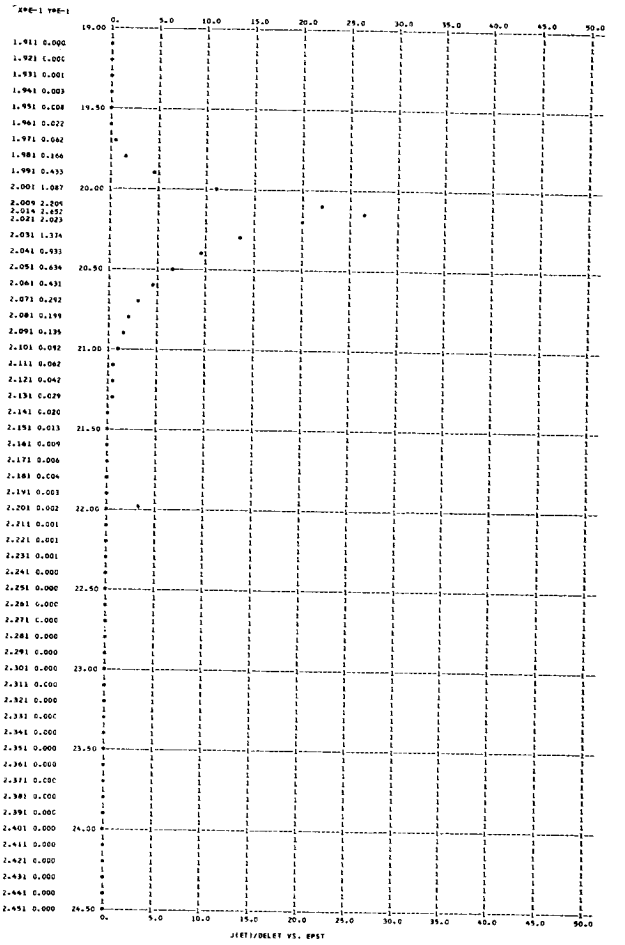
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 6.00 AMU = 15.00 EVMAX = 19.8601

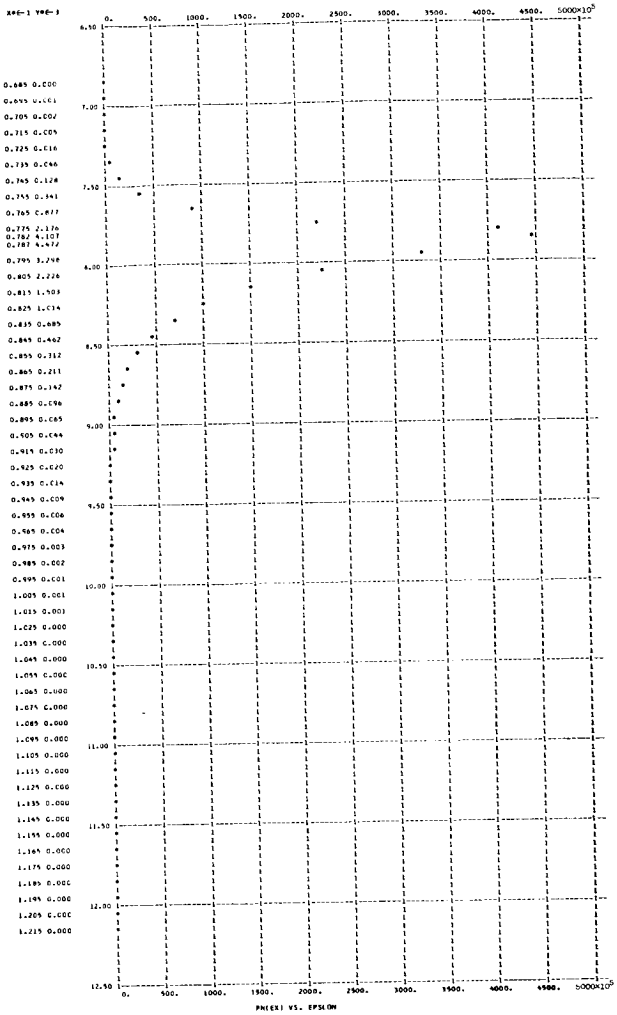
NEM = 0.26404823E 24 NEE = 0.24647150E 12 VXAV = 0.26528423E 09 KEXAV = 0.20008776E 02 KEXFL = 0.53085262E 10

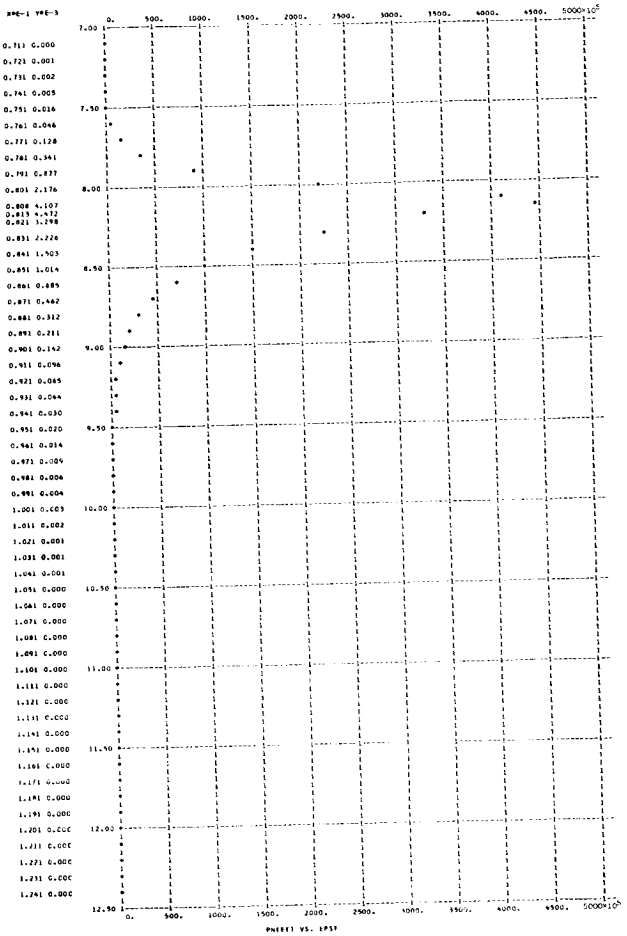
J = 0.104747E 02 KETAV= 0.202673E 02 KETFL= 0.537711E 10 TZERO = 0.156796E 06 TD = 0.200740E 04

Figure 3. - Continued.


XPE-1 YPE-1
0. 5.0 10.0 15.0 20.0 25.0 30.0 35.0 40.0 45.0 50.0
18.50
19.00
19.50
20.00
20.50
21.00
21.50
22.00
22.50
23.00
23.50
24.00
24.50
1.885 0.000
1.895 0.000
1.905 0.001
1.915 0.003
1.925 0.008
1.935 0.022
1.945 0.062
1.955 0.166
1.965 0.433
1.975 1.087
1.983 2.209
1.988 2.652
1.995 2.023
2.005 1.374
2.015 0.933
2.025 0.634
2.035 0.431
2.045 0.292
2.055 0.199
2.065 0.135
2.075 0.092
2.085 0.062
2.095 0.042
2.105 0.029
2.115 0.020
2.125 0.013
2.135 0.009
2.145 0.006
2.155 0.004
2.165 0.003
2.175 0.002
2.185 0.001
2.195 0.001
2.205 0.001
2.215 0.000
2.225 0.000
2.235 0.000
2.245 0.000
2.255 0.000
2.265 0.000
2.275 0.000
2.285 0.000
2.295 0.000
2.305 0.000
2.315 0.000
2.325 0.000
2.335 0.000
2.345 0.000
2.355 0.000
2.365 0.000
2.375 0.000
2.385 0.000
2.395 0.000
2.405 0.000
2.415 0.000
2.425 0.000
JTEAI/DELEK VS. EPSLON


XPE-1 YPE-1
0. 5.0 10.0 15.0 20.0 25.0 30.0 35.0 40.0 45.0 50.0
19.00
19.50
20.00
20.50
21.00
21.50
22.00
22.50
23.00
23.50
24.00
24.50
1.911 0.000
1.921 0.000
1.931 0.001
1.941 0.003
1.951 0.008
1.961 0.022
1.971 0.062
1.981 0.166
1.991 0.433
2.001 1.087
2.009 2.209
2.014 2.652
2.021 2.023
2.031 1.374
2.041 0.933
2.051 0.634
2.061 0.431
2.071 0.292
2.081 0.199
2.091 0.135
2.101 0.092
2.111 0.062
2.121 0.042
2.131 0.029
2.141 0.020
2.151 0.013
2.161 0.009
2.171 0.006
2.181 0.004
2.191 0.003
2.201 0.002
2.211 0.001
2.221 0.001
2.231 0.001
2.241 0.000
2.251 0.000
2.261 0.000
2.271 0.000
2.281 0.000
2.291 0.000
2.301 0.000
2.311 0.000
2.321 0.000
2.331 0.000
2.341 0.000
2.351 0.000
2.361 0.000
2.371 0.000
2.381 0.000
2.391 0.000
2.401 0.000
2.411 0.000
2.421 0.000
2.431 0.000
2.441 0.000
2.451 0.000
JTET/DELEY VS. EPST



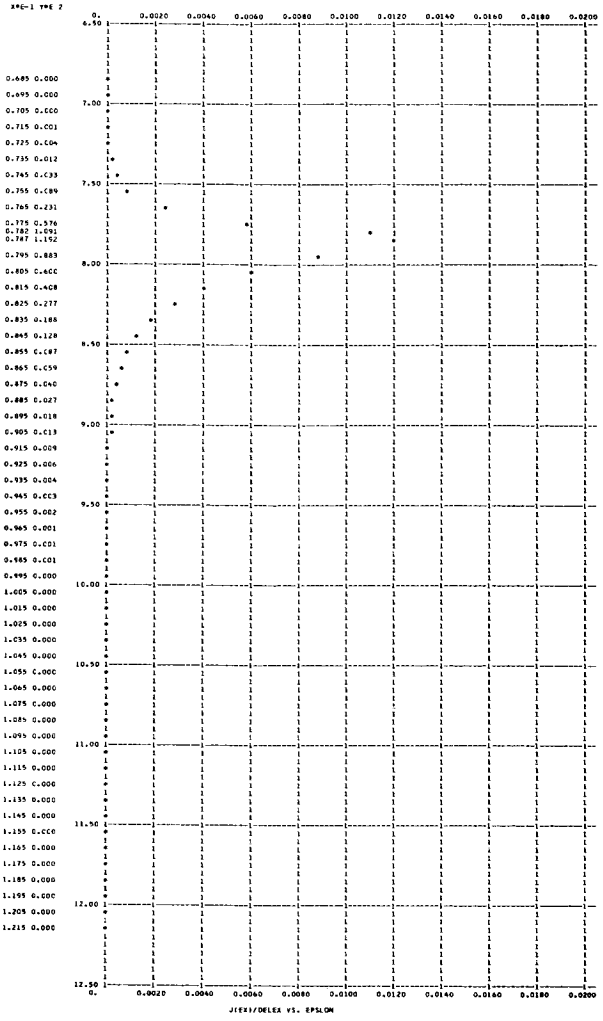


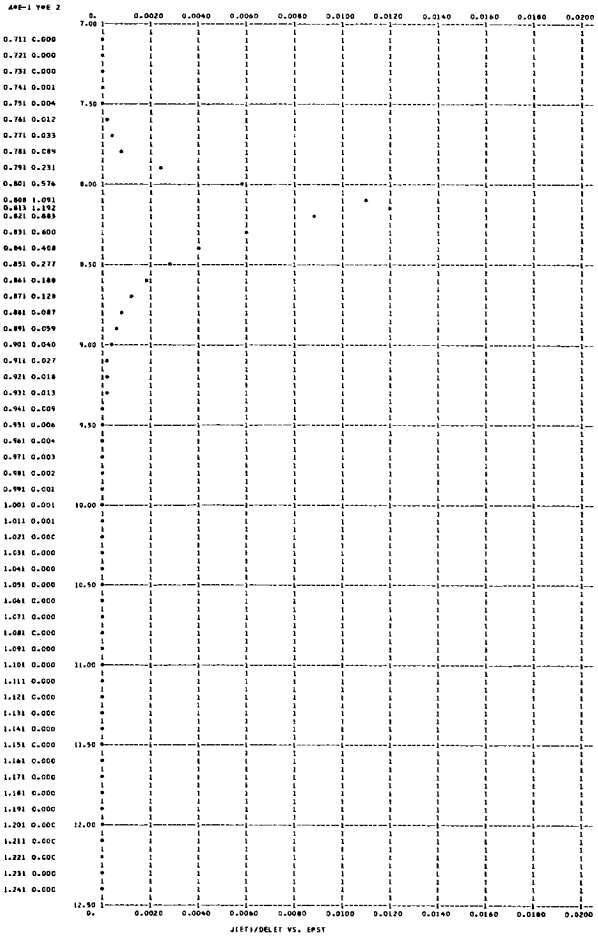
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 8.00 AMU = 1.00 EVMAX = 7.8451

NEM = 0.49014194E 22 NEE = 0.18049622E 09 VXAV = 0.16762816E 09 KEXAV = 0.79909500E 01 KEXFL = 0.13403043E 10

J = 0.484705E-02 KETAV= 0.824946E 01 KETFL= 0.138364E 10 TZERO = 0.638212E 05 TD = 0.201814E 04

Figure 3. - Continued.


A*E-1 TYE 2
0.
0.0020
0.0040
0.0060
0.0080
0.0100
0.0120
0.0140
0.0160
0.0180
0.0200
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
0.685 0.000
0.695 0.000
0.705 0.000
0.715 0.001
0.725 0.004
0.735 0.012
0.745 0.033
0.755 0.089
0.765 0.231
0.775 0.576
0.782 1.091
0.787 1.152
0.795 0.883
0.805 0.600
0.815 0.408
0.825 0.277
0.835 0.188
0.845 0.128
0.855 0.087
0.865 0.059
0.875 0.040
0.885 0.027
0.895 0.018
0.905 0.013
0.915 0.009
0.925 0.006
0.935 0.004
0.945 0.003
0.955 0.002
0.965 0.001
0.975 0.001
0.985 0.001
0.995 0.000
1.005 0.000
1.015 0.000
1.025 0.000
1.035 0.000
1.045 0.000
1.055 0.000
1.065 0.000
1.075 0.000
1.085 0.000
1.095 0.000
1.105 0.000
1.115 0.000
1.125 0.000
1.135 0.000
1.145 0.000
1.155 0.000
1.165 0.000
1.175 0.000
1.185 0.000
1.195 0.000
1.205 0.000
1.215 0.000
JIEX1/DELEX VS. EPSLON


A*E-1 TYE 2
0.
0.0020
0.0040
0.0060
0.0080
0.0100
0.0120
0.0140
0.0160
0.0180
0.0200
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
0.711 0.000
0.721 0.000
0.731 0.000
0.741 0.001
0.751 0.004
0.761 0.012
0.771 0.033
0.781 0.089
0.791 0.231
0.801 0.576
0.808 1.091
0.813 1.152
0.821 0.883
0.831 0.600
0.841 0.408
0.851 0.277
0.861 0.188
0.871 0.128
0.881 0.087
0.891 0.059
0.901 0.040
0.911 0.027
0.921 0.018
0.931 0.013
0.941 0.009
0.951 0.006
0.961 0.004
0.971 0.003
0.981 0.002
0.991 0.001
1.001 0.001
1.011 0.001
1.021 0.000
1.031 0.000
1.041 0.000
1.051 0.000
1.061 0.000
1.071 0.000
1.081 0.000
1.091 0.000
1.101 0.000
1.111 0.000
1.121 0.000
1.131 0.000
1.141 0.000
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1.161 0.000
1.171 0.000
1.181 0.000
1.191 0.000
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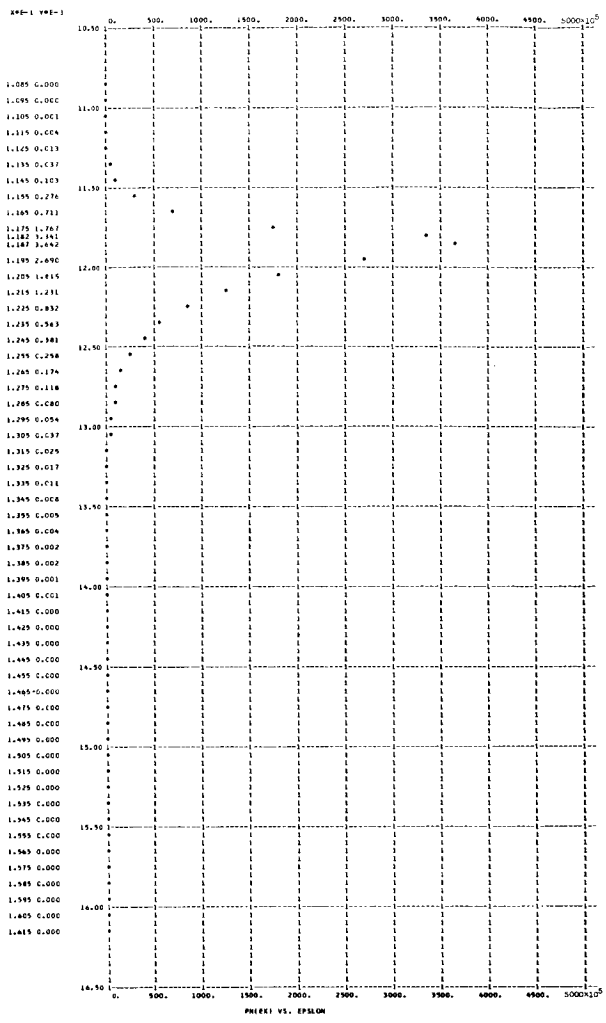
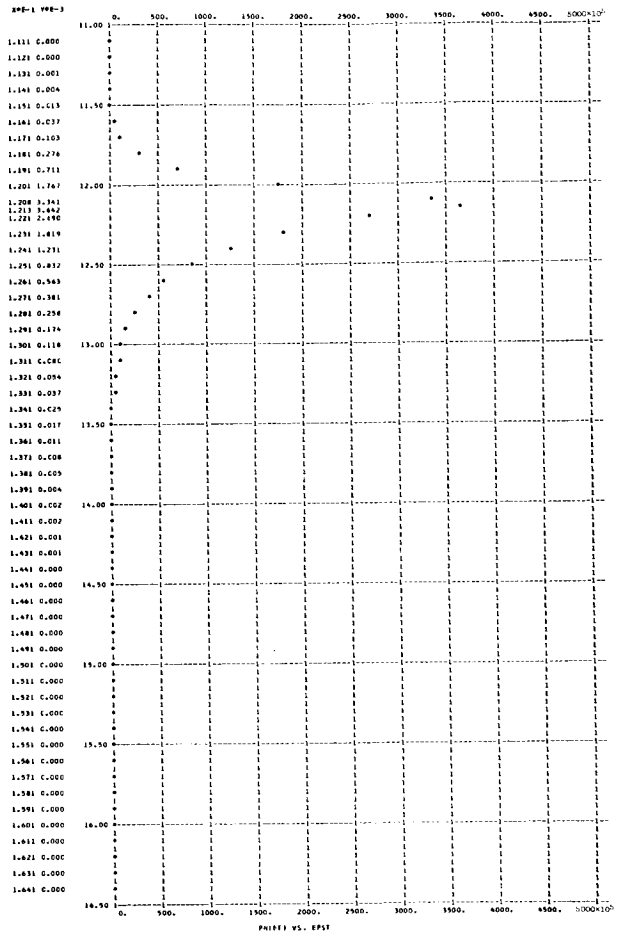
1.221 0.000
1.231 0.000
1.241 0.000
JIET1/DELET VS. EPST



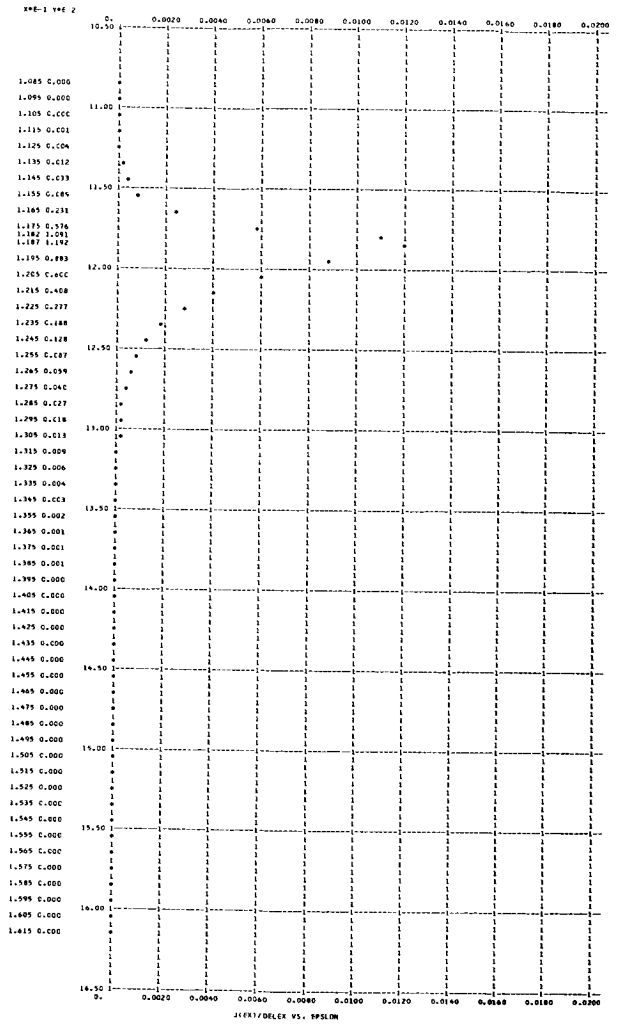


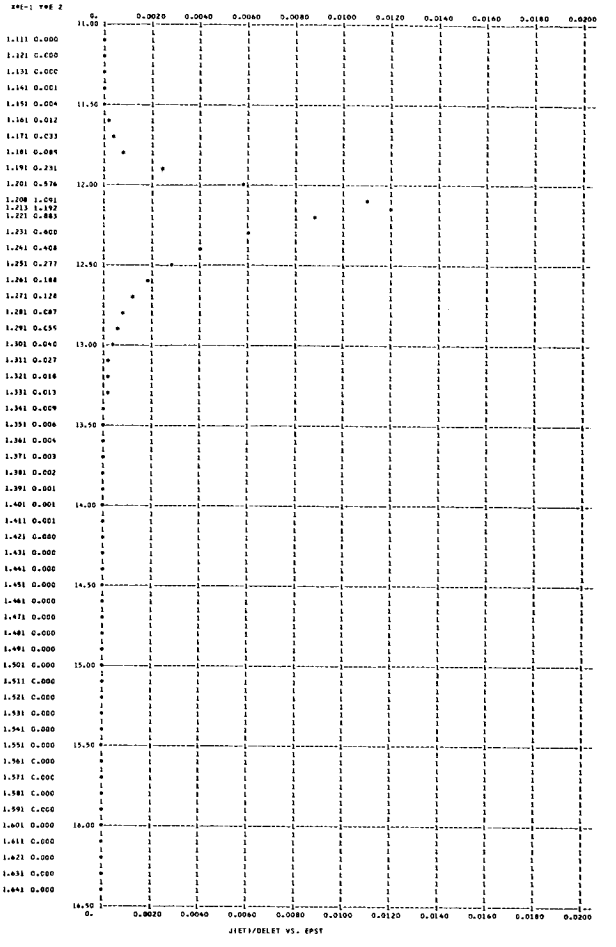
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 8.00 AMU = 5.00 EVMAX = 11.8451

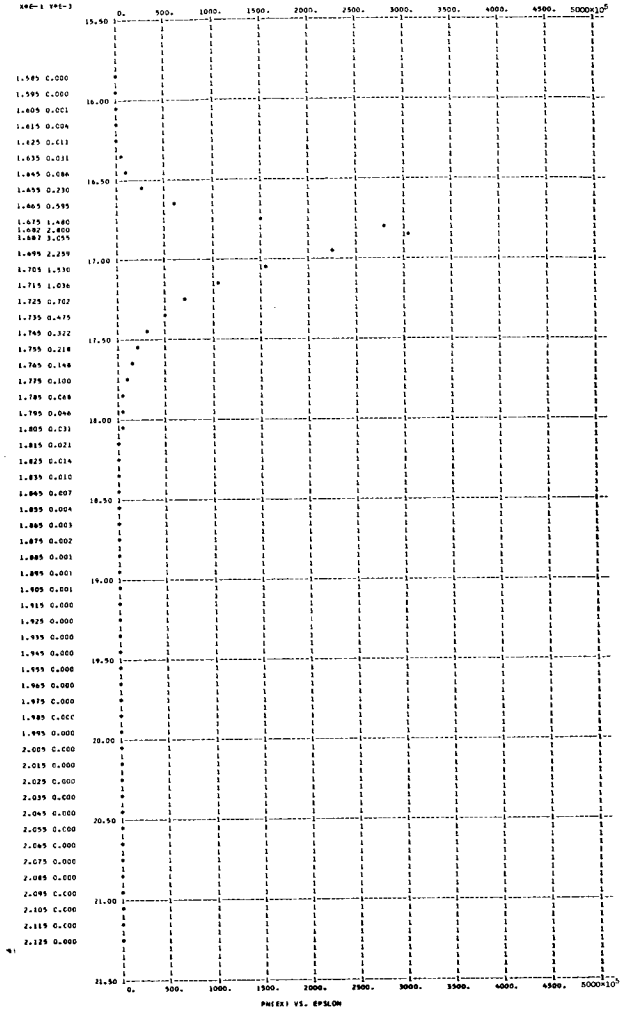
NEM = 0.50929833E 23 NEE = 0.14732481E 09 VXAV = 0.20537034E 09 KEXAV = 0.11992499E 02 KEXFL = 0.24635607E 10

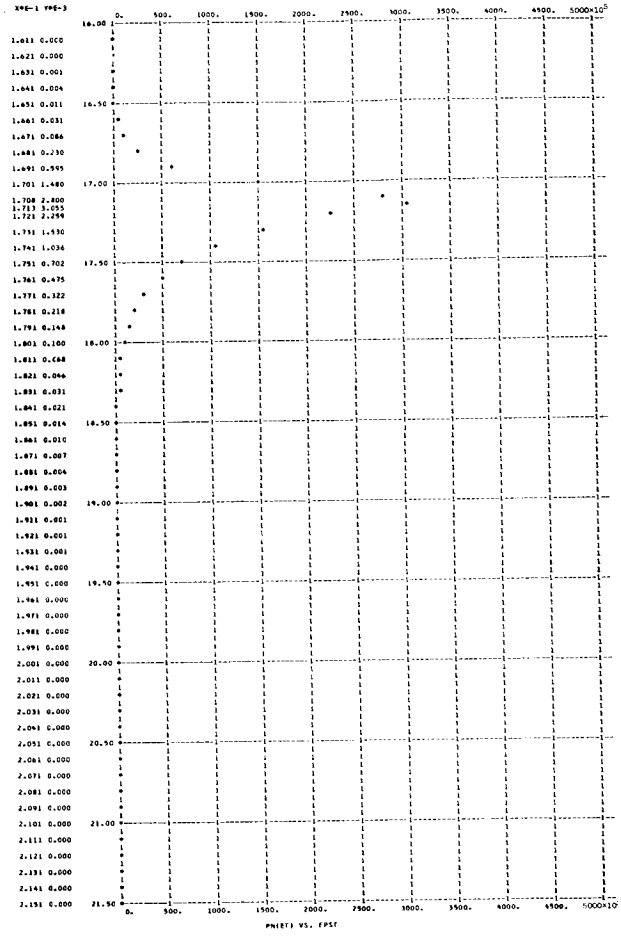
J = 0.484703E-02 KETAV= 0.122510E 02 KETFL= 0.251665E 10 TZERO = 0.947788E 05 TD = 0.201226E 04

Figure 3. - Continued.


X=E-1 Y=E 2
0. 0.0020 0.0040 0.0060 0.0080 0.0100 0.0120 0.0140 0.0160 0.0180 0.0200
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
16.50
J(ERT)/DELEX VS. EPSLON


X=E-1 Y=E 2
0. 0.0020 0.0040 0.0060 0.0080 0.0100 0.0120 0.0140 0.0160 0.0180 0.0200
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
16.50
J(ET)/DELET VS. EPST



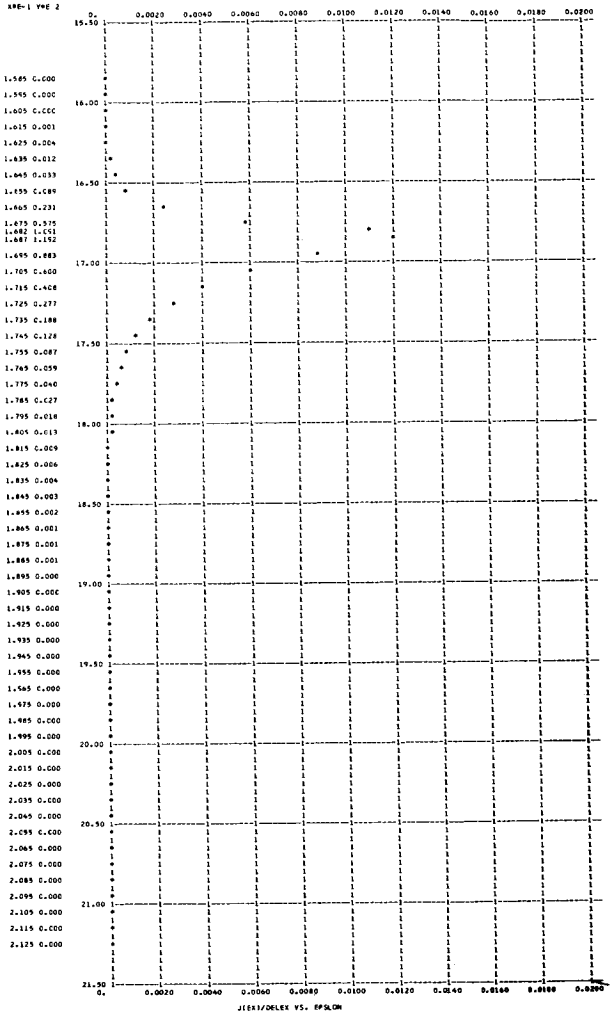


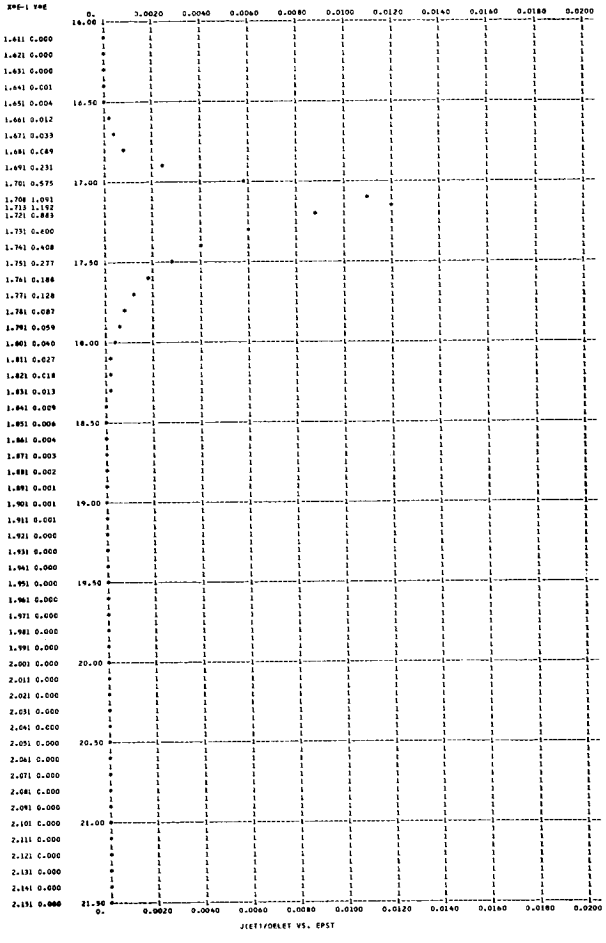
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 8.00 AMU = 10.00 EVMAX = 16.8451

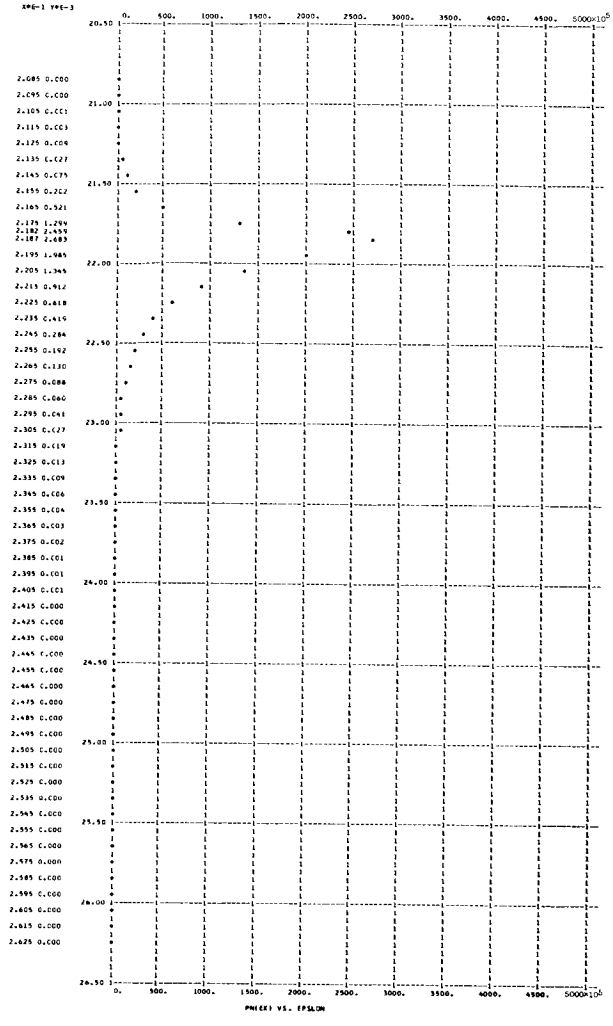
NEM = 0.14377540E 24 NEE = 0.12375862E 09 VXAV = 0.24447677E 09 KEXAV = 0.16993423E 02 KEXFL = 0.41550539E 10

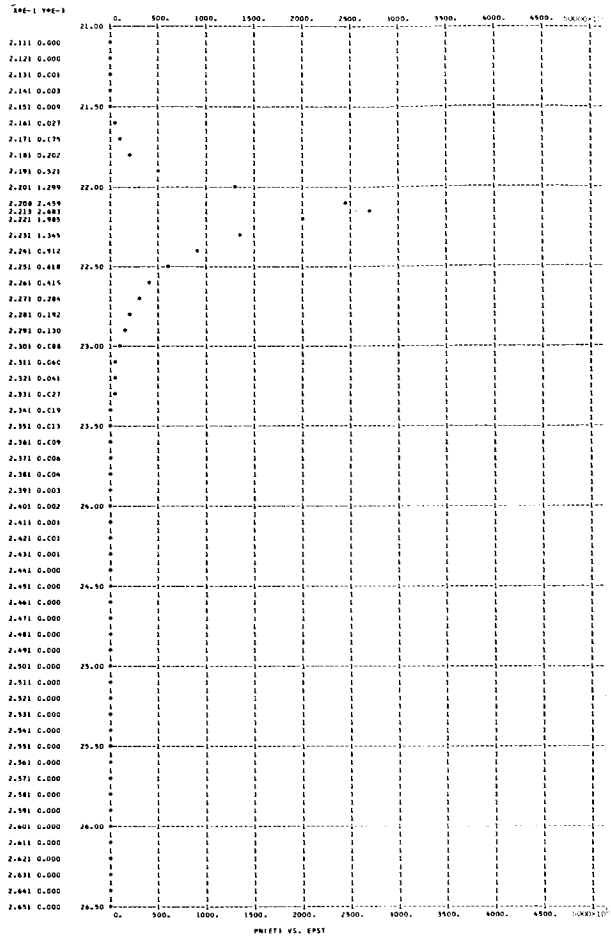
J = 0.484703E-02 KETAV= 0.172519E 02 KETFL= 0.421825E 10 TZERO = 0.133468E 06 TD = 0.200872E 04

Figure 3. - Continued.


XPE-1 YPE 2
0.
0.0020
0.0040
0.0060
0.0080
0.0100
0.0120
0.0140
0.0160
0.0180
0.0200
15.50
16.00
16.50
17.00
17.50
18.00
18.50
19.00
19.50
20.00
20.50
21.00
21.50
1.585 0.000
1.595 0.000
1.605 0.000
1.615 0.001
1.625 0.004
1.635 0.012
1.645 0.033
1.655 0.089
1.665 0.231
1.675 0.575
1.682 1.051
1.687 1.152
1.695 0.883
1.705 0.600
1.715 0.408
1.725 0.277
1.735 0.188
1.745 0.128
1.755 0.087
1.765 0.059
1.775 0.040
1.785 0.027
1.795 0.018
1.805 0.013
1.815 0.009
1.825 0.006
1.835 0.004
1.845 0.003
1.855 0.002
1.865 0.001
1.875 0.001
1.885 0.001
1.895 0.000
1.905 0.000
1.915 0.000
1.925 0.000
1.935 0.000
1.945 0.000
1.955 0.000
1.965 0.000
1.975 0.000
1.985 0.000
1.995 0.000
2.005 0.000
2.015 0.000
2.025 0.000
2.035 0.000
2.045 0.000
2.055 0.000
2.065 0.000
2.075 0.000
2.085 0.000
2.095 0.000
2.105 0.000
2.115 0.000
2.125 0.000
JIES3/DELEX VS. EPSLON


XPE-1 YPE
0.
0.0020
0.0040
0.0060
0.0080
0.0100
0.0120
0.0140
0.0160
0.0180
0.0200
16.00
16.50
17.00
17.50
18.00
18.50
19.00
19.50
20.00
20.50
21.00
21.50
1.611 0.000
1.621 0.000
1.631 0.000
1.641 0.001
1.651 0.004
1.661 0.012
1.671 0.033
1.681 0.089
1.691 0.231
1.701 0.575
1.708 1.091
1.713 1.152
1.721 0.883
1.731 0.600
1.741 0.408
1.751 0.277
1.761 0.188
1.771 0.128
1.781 0.087
1.791 0.059
1.801 0.040
1.811 0.027
1.821 0.018
1.831 0.013
1.841 0.009
1.851 0.006
1.861 0.004
1.871 0.003
1.881 0.002
1.891 0.001
1.901 0.001
1.911 0.001
1.921 0.000
1.931 0.000
1.941 0.000
1.951 0.000
1.961 0.000
1.971 0.000
1.981 0.000
1.991 0.000
2.001 0.000
2.011 0.000
2.021 0.000
2.031 0.000
2.041 0.000
2.051 0.000
2.061 0.000
2.071 0.000
2.081 0.000
2.091 0.000
2.101 0.000
2.111 0.000
2.121 0.000
2.131 0.000
2.141 0.000
2.151 0.000
JCET1/DELET VS. EPST



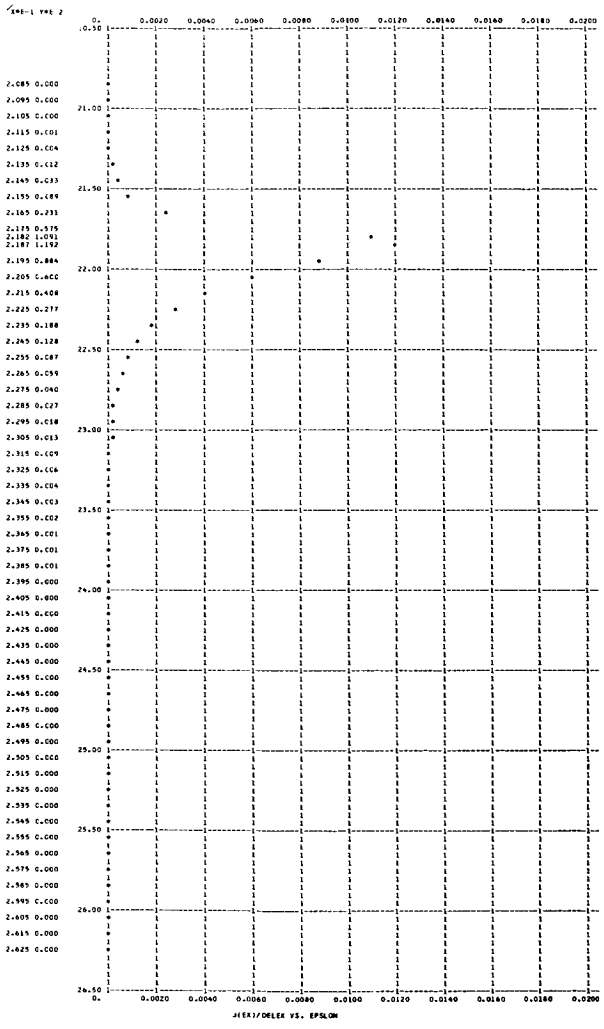


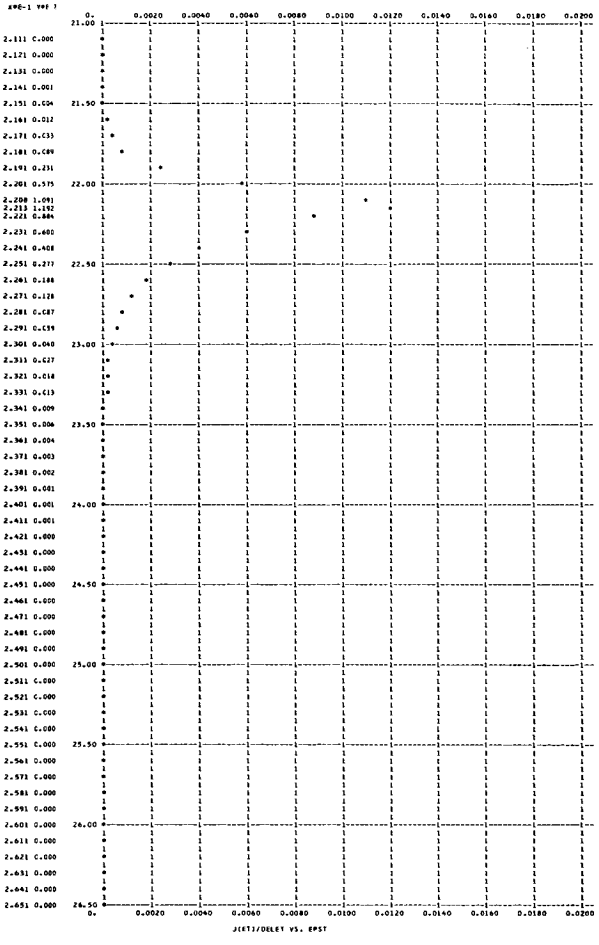
T = 0.30000000E 04 E = 0.10000002E 08 PHI = 8.00 AMU = 15.00 EVMAX = 21.8451

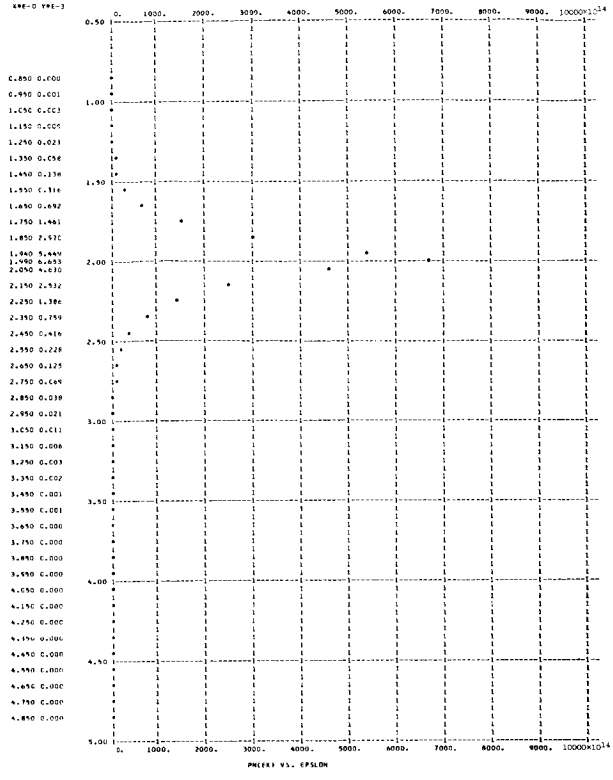
NEM = 0.26404823E 24 NEE = 0.10878249E 09 VXAV = 0.27813419E 09 KEXAV = 0.21993934E 02 KEXFL = 0.61177561E 10

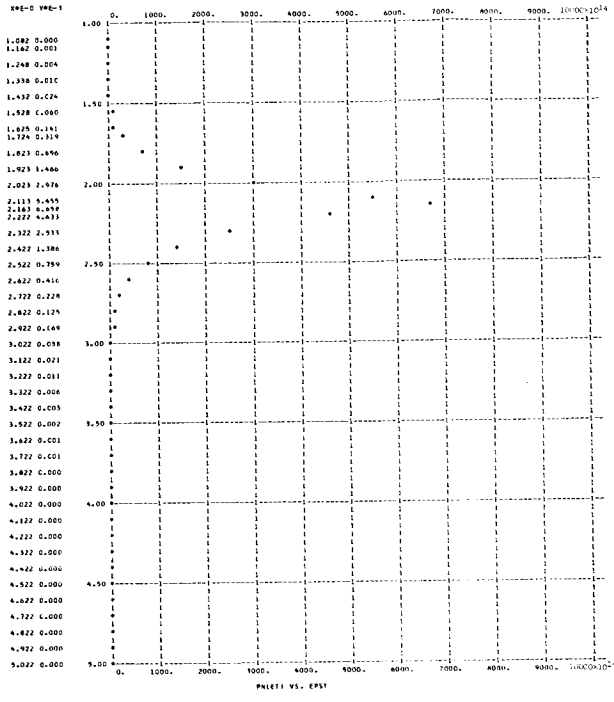
J = 0.484703E-02 KETAV= 0.222524E 02 KETFL= 0.618966E 10 TZERO = 0.172154E 06 TD = 0.200678E 04

Figure 3. - Continued.


0.
0.0020
0.0040
0.0060
0.0080
0.0100
0.0120
0.0140
0.0160
0.0180
0.0200
J(EK)/DELEK VS. EPSLON


0.
0.0020
0.0040
0.0060
0.0080
0.0100
0.0120
0.0140
0.0160
0.0180
0.0200
J(ET)/DELET VS. EPST



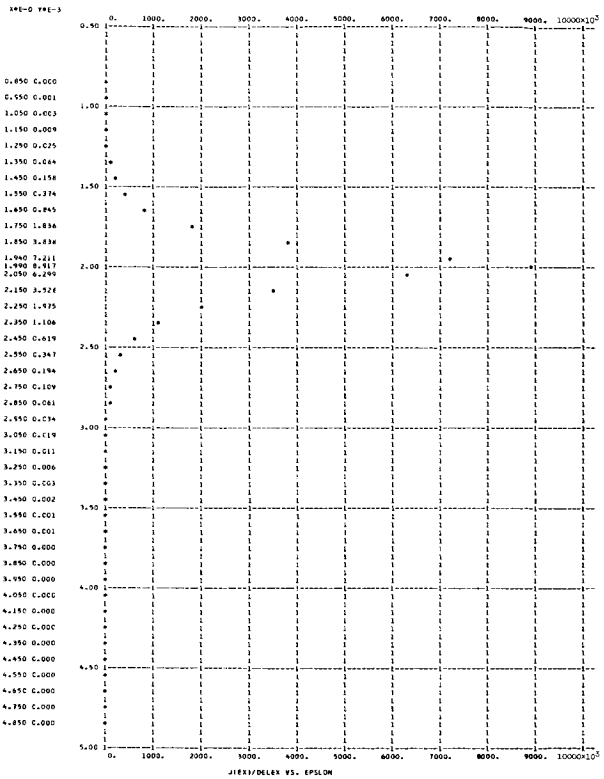


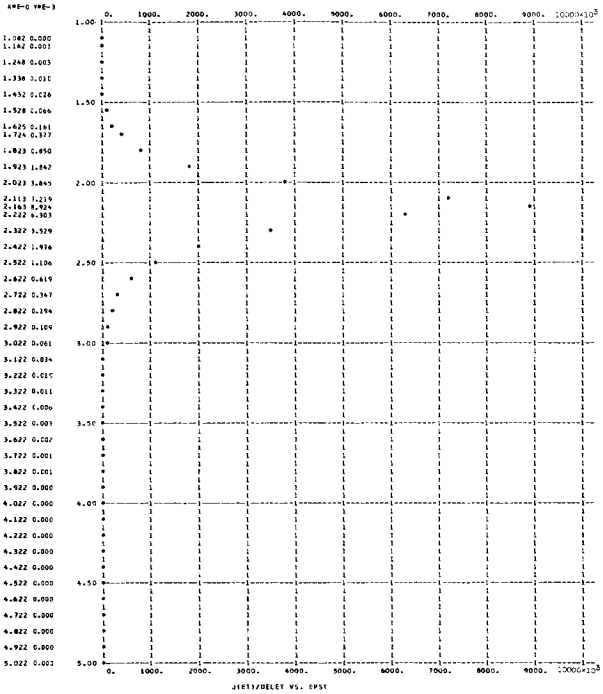
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 2.00 AMU = 1.00 EVMAX = 1.9800

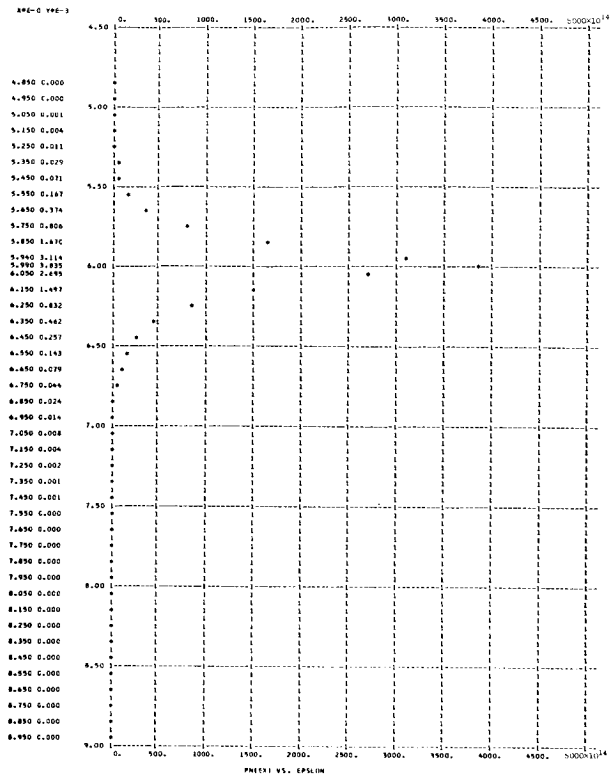
NEM = 0.46731991E 22 NEE = 0.21594663E 18 VXAV = 0.83890026E 08 KEXAV = 0.20064043E 01 KEXFL = 0.16926789E 09

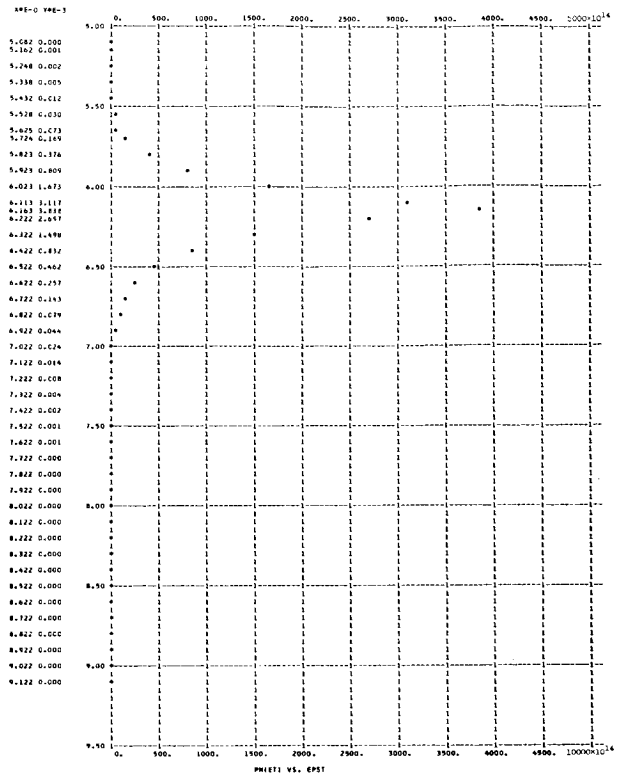
J = 0.290215E 07 KETAV= 0.217902E 01 KETFL= 0.183747E 09 TZERO = 0.168578E 05 TO = 0.137900E 04

Figure 3. - Continued.


X*E-0 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
0.950 0.000
1.050 0.001
1.150 0.003
1.250 0.009
1.350 0.025
1.450 0.064
1.550 0.158
1.650 0.374
1.750 0.845
1.850 1.836
1.950 3.811
1.990 4.917
2.050 6.299
2.150 3.526
2.250 1.435
2.350 1.106
2.450 0.619
2.550 0.347
2.650 0.194
2.750 0.109
2.850 0.061
2.950 0.034
3.050 0.019
3.150 0.011
3.250 0.006
3.350 0.003
3.450 0.002
3.550 0.001
3.650 0.001
3.750 0.000
3.850 0.000
3.950 0.000
4.050 0.000
4.150 0.000
4.250 0.000
4.350 0.000
4.450 0.000
4.550 0.000
4.650 0.000
4.750 0.000
4.850 0.000
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
JIEXI/DELEX VS. EPSLON


X*E-0 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
1.082 0.000
1.182 0.001
1.248 0.003
1.338 0.010
1.432 0.026
1.528 0.066
1.625 0.161
1.724 0.377
1.823 0.850
1.923 1.842
2.023 3.845
2.113 7.219
2.163 8.924
2.222 6.303
2.322 3.529
2.422 1.936
2.522 1.106
2.622 0.619
2.722 0.347
2.822 0.194
2.922 0.109
3.022 0.061
3.122 0.034
3.222 0.019
3.322 0.011
3.422 0.006
3.522 0.003
3.622 0.002
3.722 0.001
3.822 0.001
3.922 0.000
4.022 0.000
4.122 0.000
4.222 0.000
4.322 0.000
4.422 0.000
4.522 0.000
4.622 0.000
4.722 0.000
4.822 0.000
4.922 0.000
5.022 0.000
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
JIETI/DELEY VS. EPSI



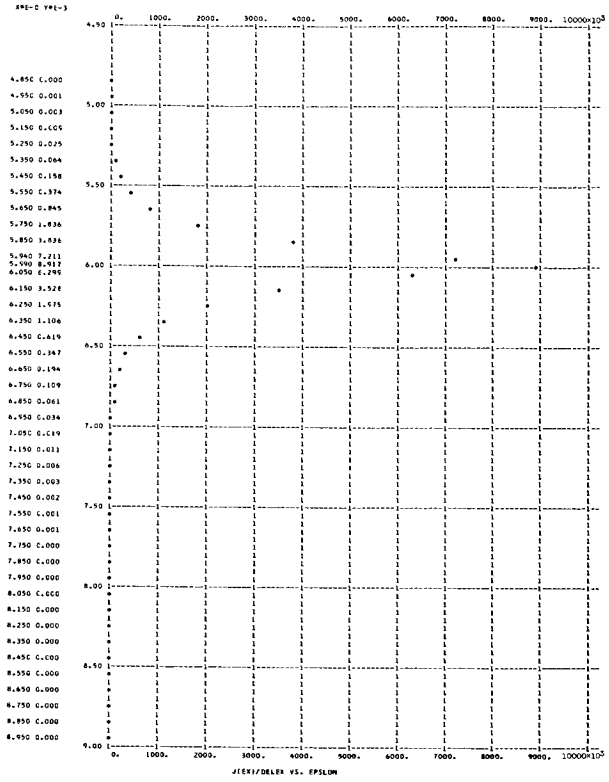


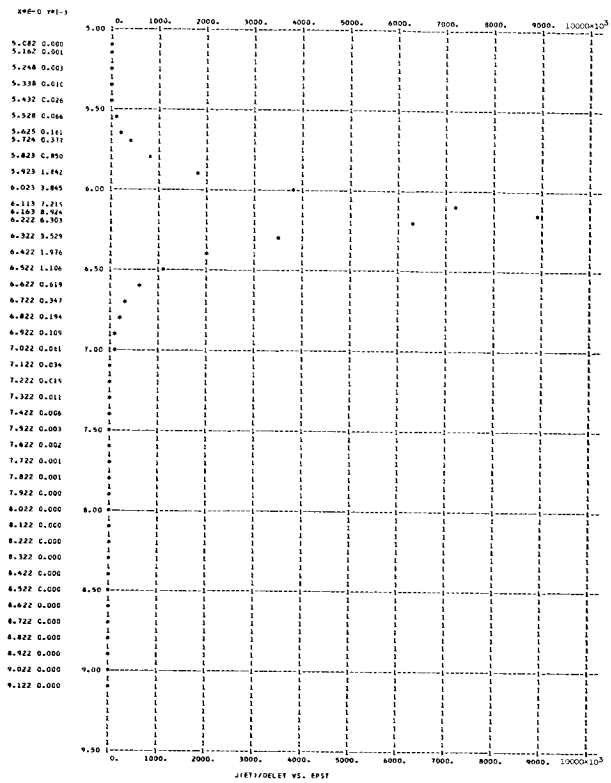
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 2.00 AMU = 5.00 EVMAX = 5.9800

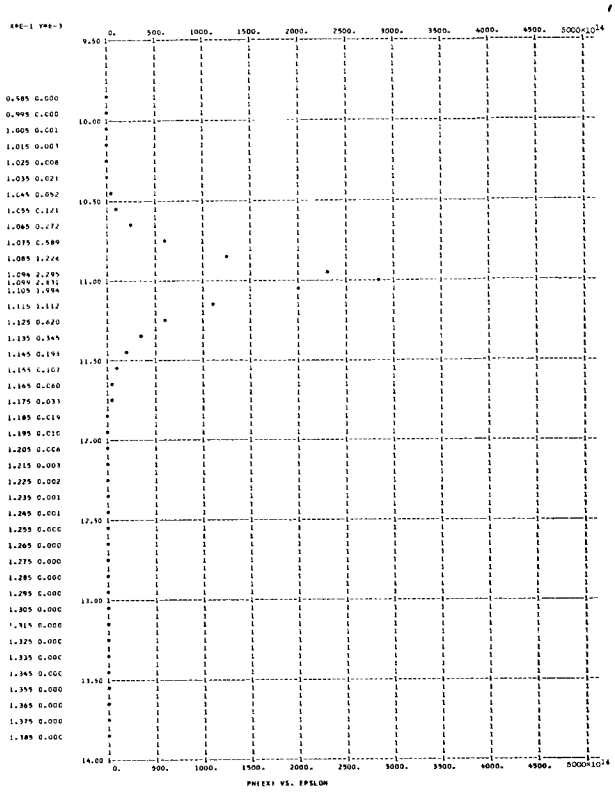
NEM = 0.50836430E 23 NEE = 0.12456870E 18 VXAV = 0.14541909E 09 KEXAV = 0.60139136E 01 KEXFL = 0.87509409E 09

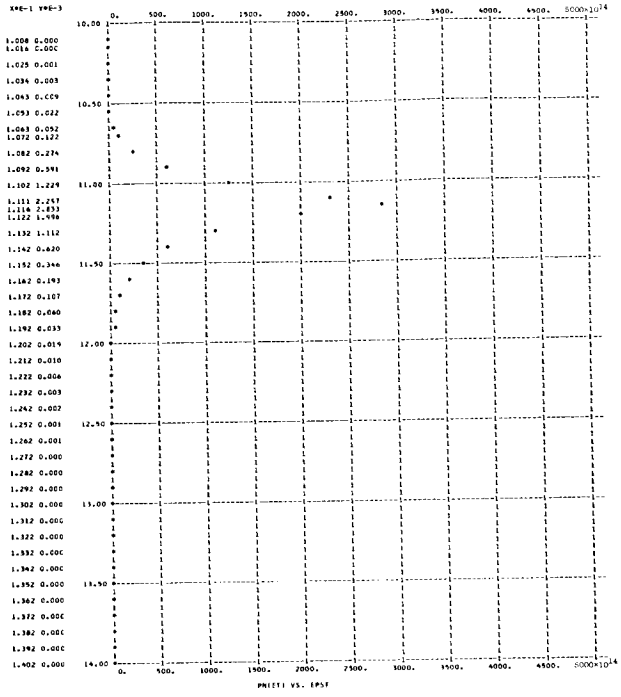
J = 0.290197E 07 KETAV= 0.618651E 01 KETFL= 0.900193E 09 TZERO = 0.478614E 05 TD = 0.135004E 04

Figure 3. - Continued.


X=E-0 Y=(-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
4.850 0.000
4.950 0.001
5.050 0.003
5.150 0.009
5.250 0.025
5.350 0.064
5.450 0.158
5.550 0.374
5.650 0.845
5.750 1.836
5.850 3.836
5.940 7.211
5.990 8.917
6.050 8.296
6.150 3.528
6.250 1.575
6.350 1.106
6.450 0.619
6.550 0.347
6.650 0.194
6.750 0.109
6.850 0.061
6.950 0.034
7.050 0.019
7.150 0.011
7.250 0.006
7.350 0.003
7.450 0.002
7.550 0.001
7.650 0.001
7.750 0.000
7.850 0.000
7.950 0.000
8.050 0.000
8.150 0.000
8.250 0.000
8.350 0.000
8.450 0.000
8.550 0.000
8.650 0.000
8.750 0.000
8.850 0.000
8.950 0.000
4.50
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
J(EXI/DELER VS. EPSLON


X=E-0 Y=(-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
5.082 0.000
5.182 0.901
5.248 0.003
5.338 0.010
5.432 0.026
5.528 0.066
5.625 0.161
5.724 0.317
5.823 0.850
5.923 1.842
6.023 3.845
6.113 7.215
6.163 8.924
6.222 6.303
6.322 3.529
6.422 1.976
6.522 1.106
6.622 0.619
6.722 0.347
6.822 0.194
6.922 0.109
7.022 0.061
7.122 0.034
7.222 0.019
7.322 0.011
7.422 0.006
7.522 0.003
7.622 0.002
7.722 0.001
7.822 0.001
7.922 0.000
8.022 0.000
8.122 0.000
8.222 0.000
8.322 0.000
8.422 0.000
8.522 0.000
8.622 0.000
8.722 0.000
8.822 0.000
8.922 0.000
9.022 0.000
9.122 0.000
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
J(ET)/DELET VS. EPSI



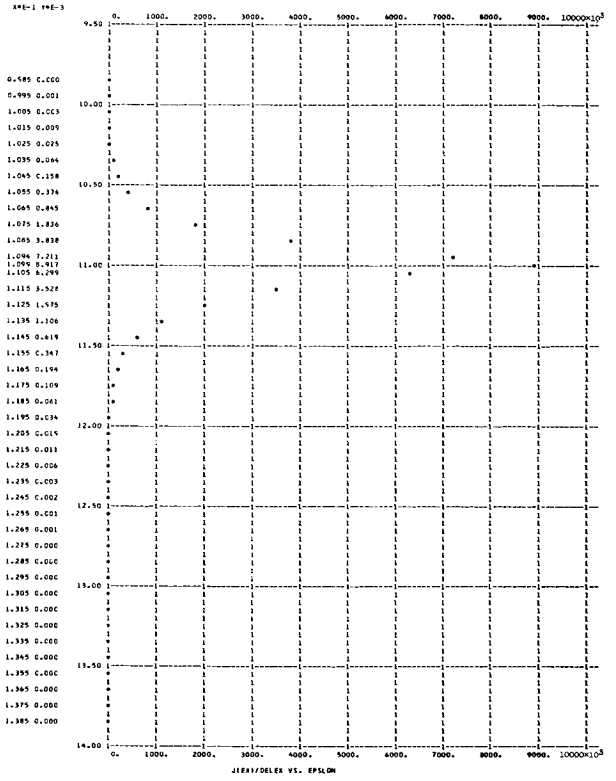


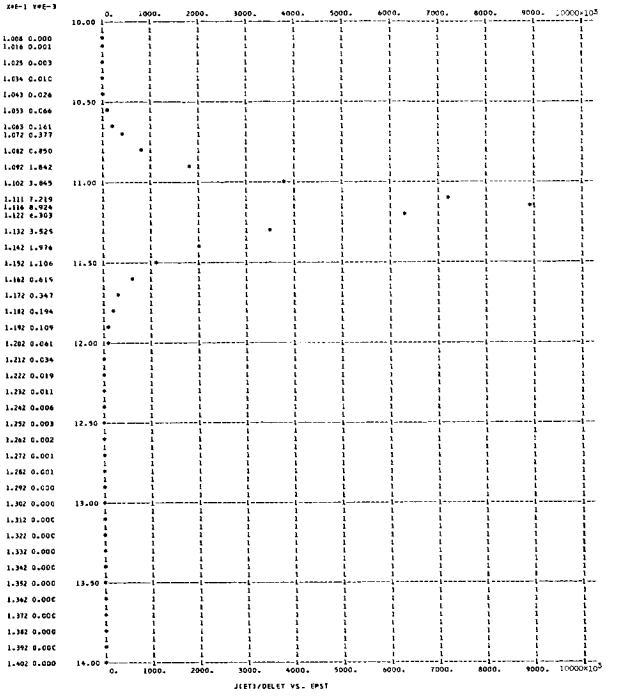
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 2.00 AMU = 10.00 EVMAX = 10.9800

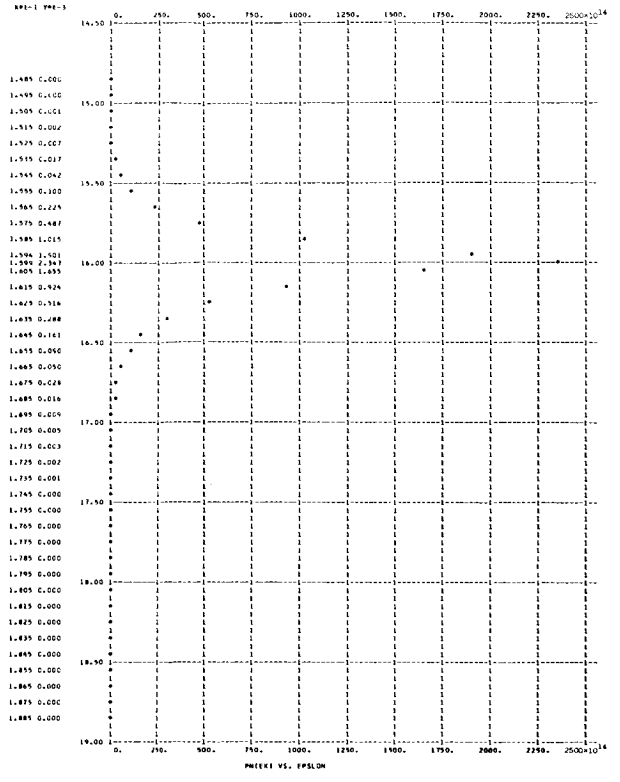
NEM = 0.14370953E 24 NEE = 0.92030641E 17 VXAV = 0.19683204E 09 KEXAV = 0.11015638E 02 KEXFL = 0.21686438E 10

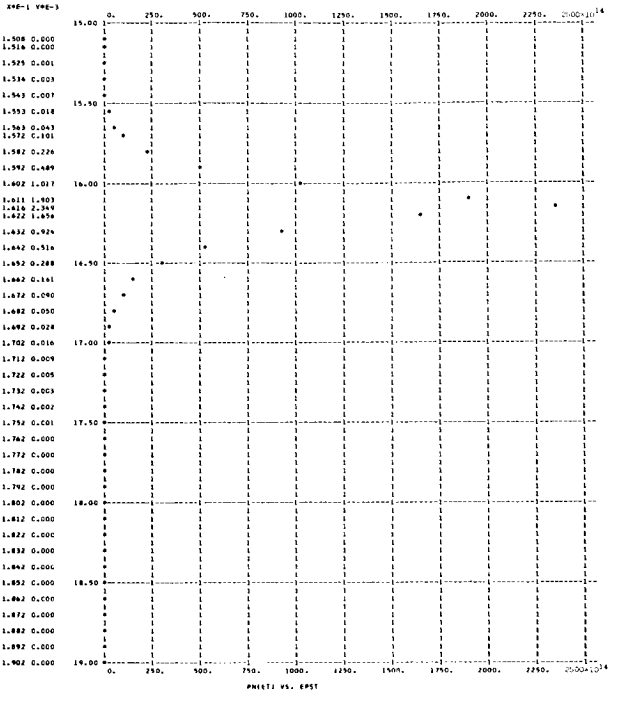
J = 0.290196E 07 KETAV= 0.111882E 02 KETFL= 0.220262E 10 TZERO = 0.865567E 05 TD = 0.134337E 04

Figure 3. - Continued.


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
9.50
10.00
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
0.585 0.000
0.995 0.001
1.005 0.003
1.015 0.009
1.025 0.025
1.035 0.064
1.045 0.158
1.055 0.374
1.065 0.849
1.075 1.836
1.085 3.838
1.094 7.211
1.094 8.917
1.105 6.299
1.115 3.528
1.125 1.575
1.135 1.106
1.145 0.619
1.155 0.347
1.165 0.194
1.175 0.109
1.185 0.061
1.195 0.034
1.205 0.019
1.215 0.011
1.225 0.006
1.235 0.003
1.245 0.002
1.255 0.001
1.265 0.001
1.275 0.000
1.285 0.000
1.295 0.000
1.305 0.000
1.315 0.000
1.325 0.000
1.335 0.000
1.345 0.000
1.355 0.000
1.365 0.000
1.375 0.000
1.385 0.000
JEE3/DELE3 VS. EPSLON


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
10.00
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
1.008 0.000
1.018 0.001
1.025 0.003
1.034 0.010
1.043 0.026
1.053 0.066
1.063 0.161
1.072 0.377
1.082 0.850
1.092 1.842
1.102 3.845
1.111 7.219
1.116 8.924
1.122 6.303
1.132 3.525
1.142 1.974
1.152 1.106
1.162 0.619
1.172 0.347
1.182 0.194
1.192 0.109
1.202 0.061
1.212 0.034
1.222 0.019
1.232 0.011
1.242 0.006
1.252 0.003
1.262 0.002
1.272 0.001
1.282 0.001
1.292 0.000
1.302 0.000
1.312 0.000
1.322 0.000
1.332 0.000
1.342 0.000
1.352 0.000
1.362 0.000
1.372 0.000
1.382 0.000
1.392 0.000
1.402 0.000
JEET3/DELET VS. EPST



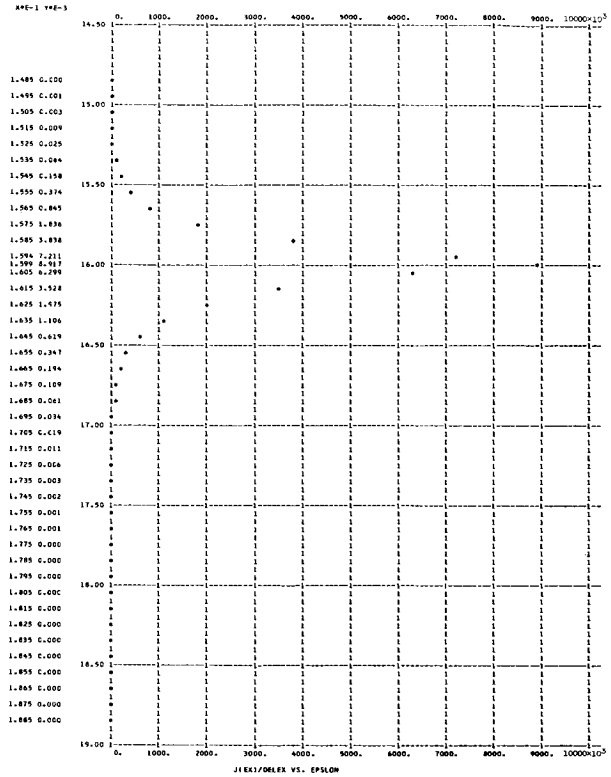


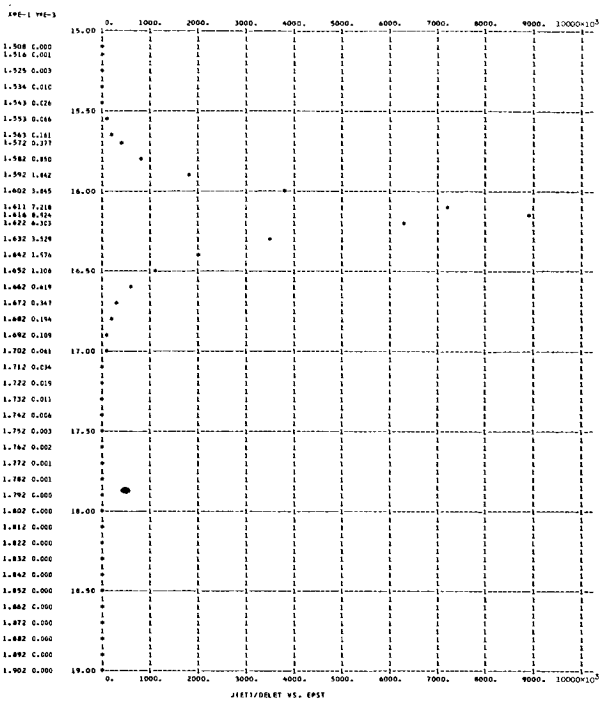
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 2.00 ANU = 15.00 EVMAX = 15.9800

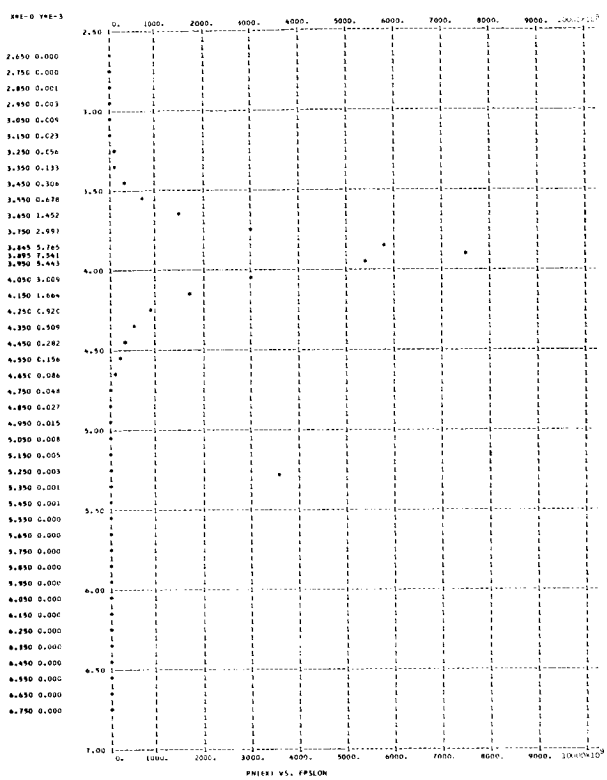
NEM = 0.26399449E 24 NEE = 0.76321061E 17 VXAV = 0.23734649E 09 KEXAV = 0.16016290E 02 KEXFL = 0.38017538E 10

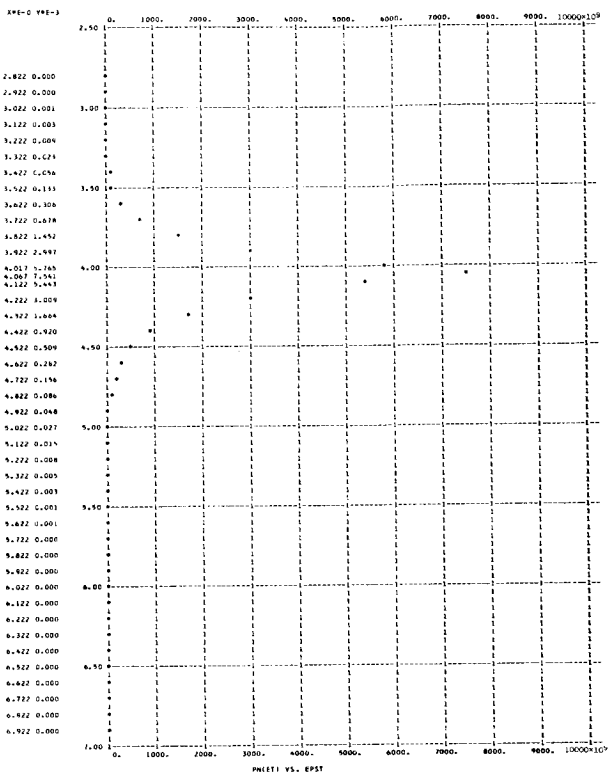
J = 0.290195E 07 KETAV= 0.161889E 02 KETFL= 0.384272E 10 TZERO = 0.125244E 06 TD = 0.134083E 04

Figure 3. - Continued.


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
14.50
15.00
15.50
16.00
16.50
17.00
17.50
18.00
18.50
19.00
1.485 0.000
1.495 0.001
1.505 0.003
1.515 0.009
1.525 0.025
1.535 0.064
1.545 0.158
1.555 0.374
1.565 0.845
1.575 1.836
1.585 3.838
1.594 7.211
1.599 8.917
1.605 8.298
1.615 5.528
1.625 1.475
1.635 1.106
1.645 0.619
1.655 0.347
1.665 0.194
1.675 0.109
1.685 0.061
1.695 0.034
1.705 0.019
1.715 0.011
1.725 0.006
1.735 0.003
1.745 0.002
1.755 0.001
1.765 0.001
1.775 0.000
1.785 0.000
1.795 0.000
1.805 0.000
1.815 0.000
1.825 0.000
1.835 0.000
1.845 0.000
1.855 0.000
1.865 0.000
1.875 0.000
1.885 0.000
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
J(EX)/DELEX VS. EPSLON


X*E-1 Y*E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
15.00
15.50
16.00
16.50
17.00
17.50
18.00
18.50
19.00
1.508 0.000
1.516 0.001
1.525 0.003
1.534 0.010
1.543 0.026
1.553 0.066
1.563 0.161
1.572 0.377
1.582 0.850
1.592 1.842
1.602 3.845
1.611 7.218
1.616 8.924
1.622 8.303
1.632 5.529
1.642 1.476
1.652 1.108
1.662 0.619
1.672 0.347
1.682 0.194
1.692 0.109
1.702 0.061
1.712 0.034
1.722 0.019
1.732 0.011
1.742 0.006
1.752 0.003
1.762 0.002
1.772 0.001
1.782 0.001
1.792 0.000
1.802 0.000
1.812 0.000
1.822 0.000
1.832 0.000
1.842 0.000
1.852 0.000
1.862 0.000
1.872 0.000
1.882 0.000
1.892 0.000
1.902 0.000
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
J(ET)/DELET VS. EPST



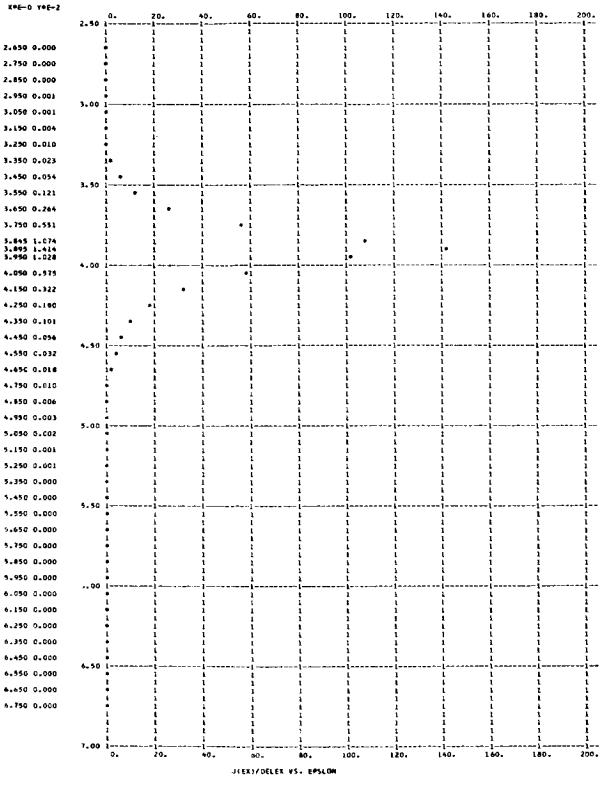


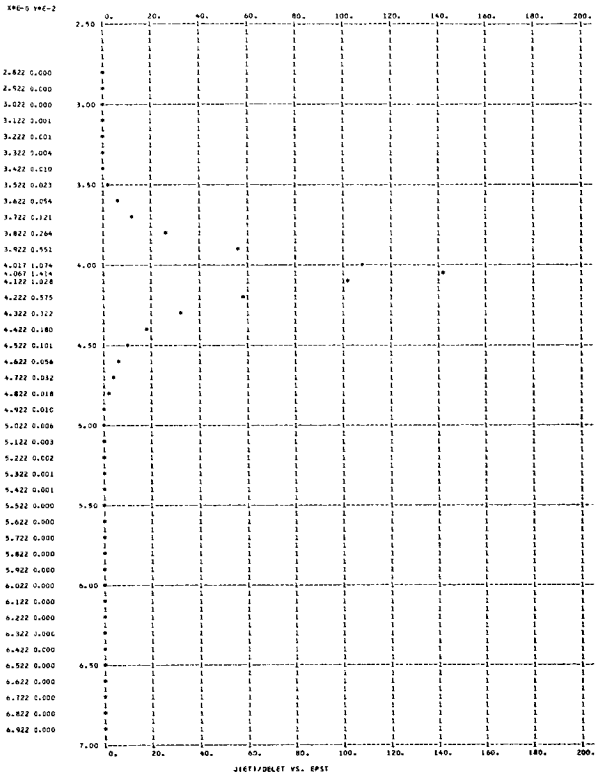
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 4.00 AMU = 1.00 EVMAX = 3.8901

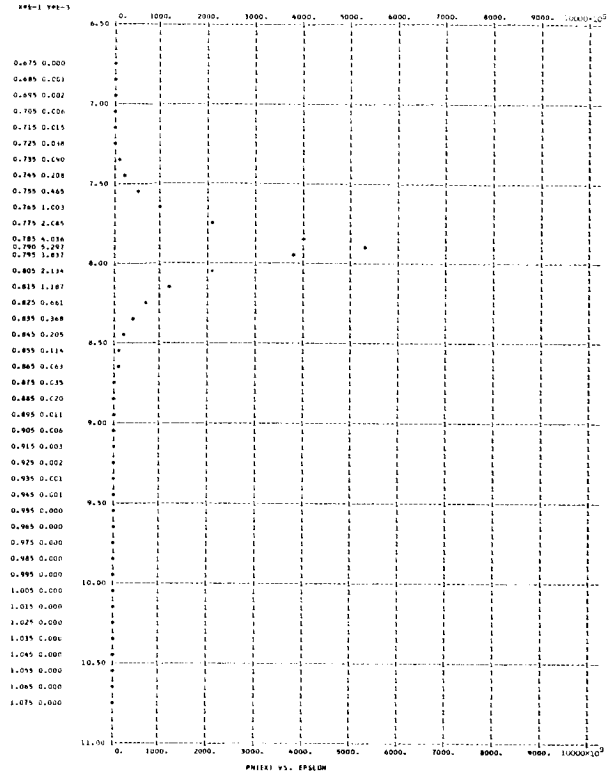
NEM = 0.46731979E 22 NEE = 0.23779767E 13 VXAV = 0.11739497E 09 KEXAV = 0.39210270E 01 KEXFL = 0.46099941E 09

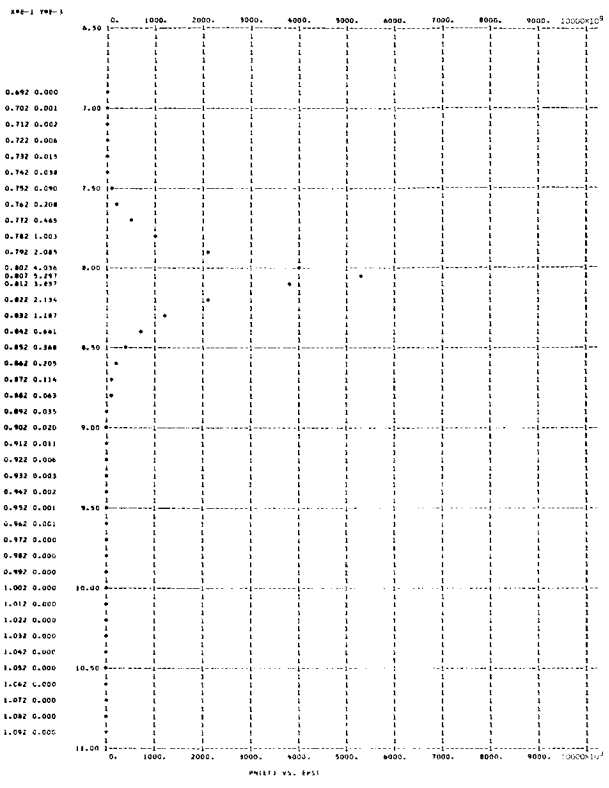
J = 0.447218E 02 KETAV= 0.409337E 01 KETFL= 0.481232E 09 TZERO = 0.316680E 05 TD = 0.135595E 04

Figure 3. - Continued.


XPE-0 YPE-2
2.650 0.000
2.750 0.000
2.850 0.000
2.950 0.001
3.050 0.001
3.150 0.004
3.250 0.010
3.350 0.023
3.450 0.054
3.550 0.121
3.650 0.264
3.750 0.551
3.845 1.074
3.893 1.414
3.950 1.028
4.050 0.575
4.150 0.322
4.250 0.180
4.350 0.101
4.450 0.056
4.550 0.032
4.650 0.018
4.750 0.010
4.850 0.006
4.950 0.003
5.050 0.002
5.150 0.001
5.250 0.001
5.350 0.000
5.450 0.000
5.550 0.000
5.650 0.000
5.750 0.000
5.850 0.000
5.950 0.000
6.050 0.000
6.150 0.000
6.250 0.000
6.350 0.000
6.450 0.000
6.550 0.000
6.650 0.000
6.750 0.000
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00
6.50
7.00
J(EK)/DELEK VS. EPSLON


XPE-5 YPE-2
2.622 0.000
2.722 0.000
3.022 0.000
3.122 0.001
3.222 0.001
3.322 0.004
3.422 0.010
3.522 0.023
3.622 0.054
3.722 0.121
3.822 0.264
3.922 0.551
4.017 1.074
4.067 1.414
4.122 1.028
4.222 0.575
4.322 0.322
4.422 0.180
4.522 0.101
4.622 0.056
4.722 0.032
4.822 0.018
4.922 0.010
5.022 0.006
5.122 0.003
5.222 0.002
5.322 0.001
5.422 0.001
5.522 0.000
5.622 0.000
5.722 0.000
5.822 0.000
5.922 0.000
6.022 0.000
6.122 0.000
6.222 0.000
6.322 0.000
6.422 0.000
6.522 0.000
6.622 0.000
6.722 0.000
6.822 0.000
6.922 0.000
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00
6.50
7.00
J(ET)/DELET VS. EPST



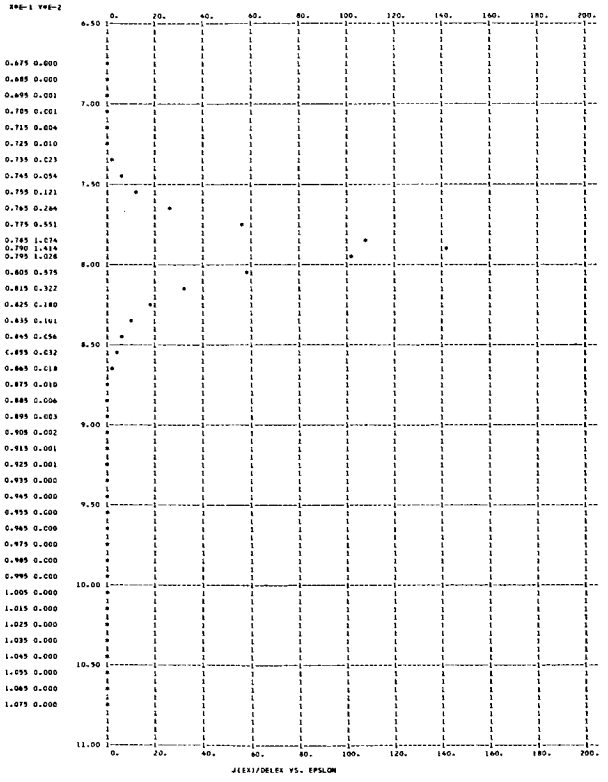


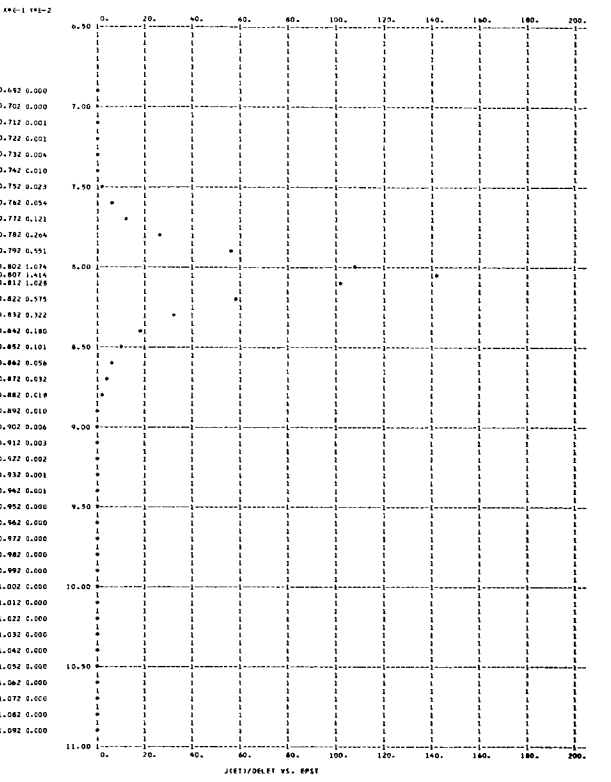
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 4.00 AMU = 5.00 EVMAX = 7.8901

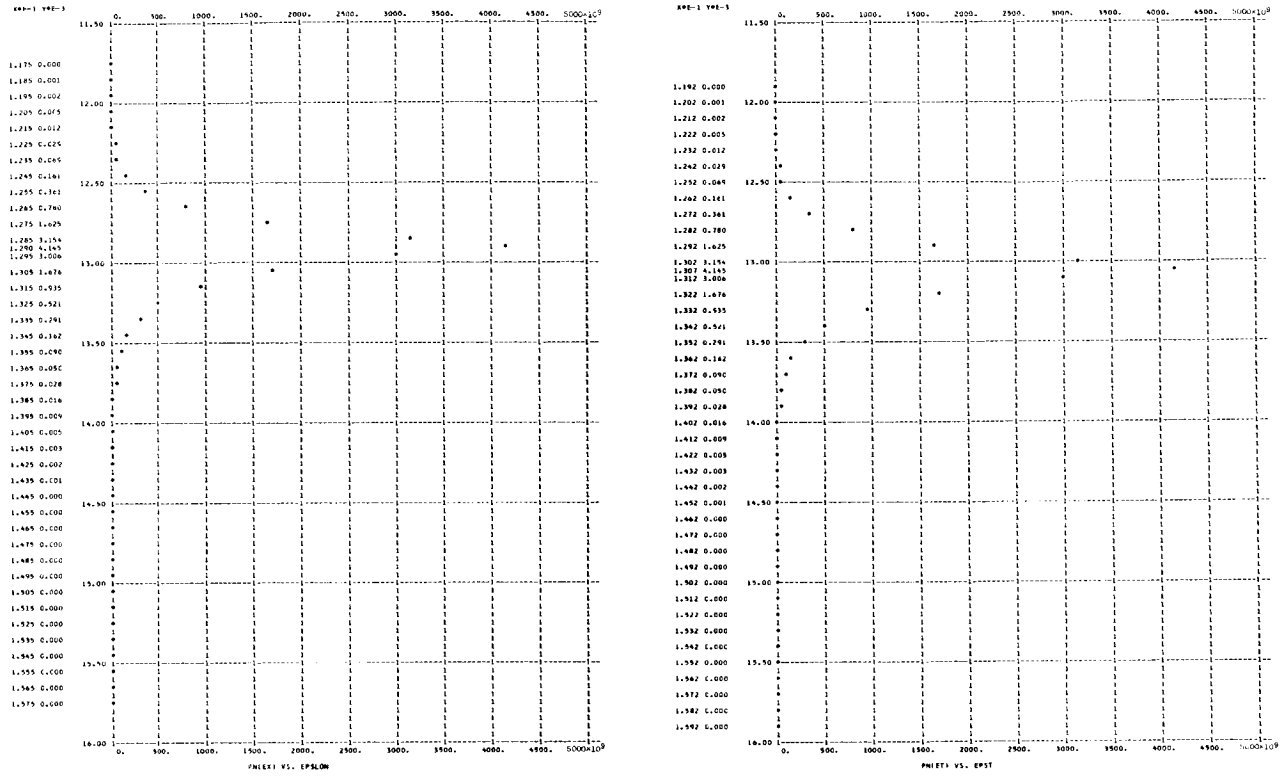
NEM = 0.50836430E 23 NEE = 0.16722743E 13 VXAV = 0.16693334E 09 KEXAV = 0.79239760E 01 KEXFL = 0.13232656E 10

J = 0.447212E 02 KETAV= 0.809632E 01 KETFL= 0.135204E 10 TZERO = 0.626364E 05 TD = 0.134463E 04

Figure 3. - Continued.


J(EX)/DELEX VS. EPSLON


J(ET)/DELET VS. EPST

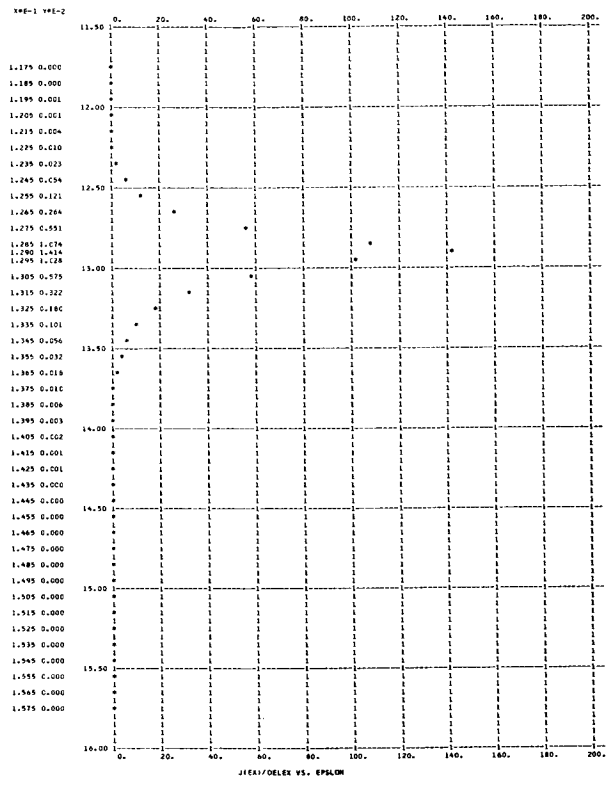


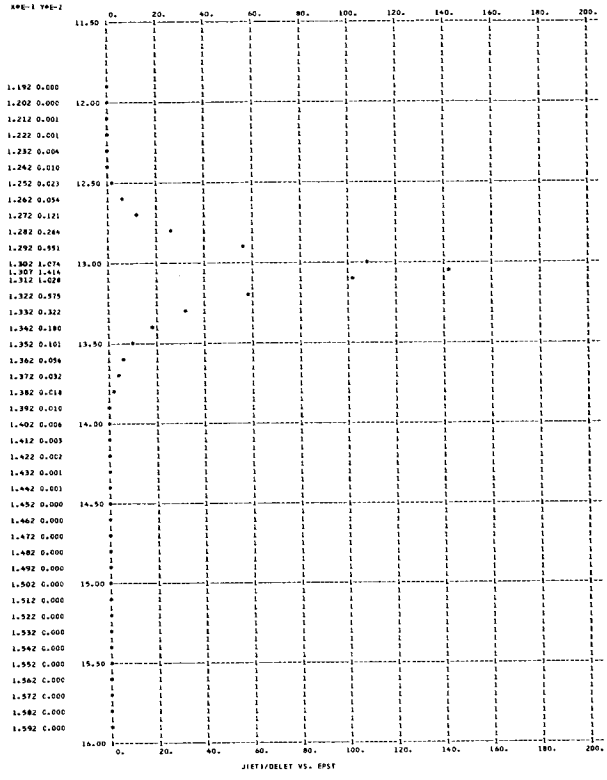
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 4.00 AMU = 10.00 EVMAX = 12.8901

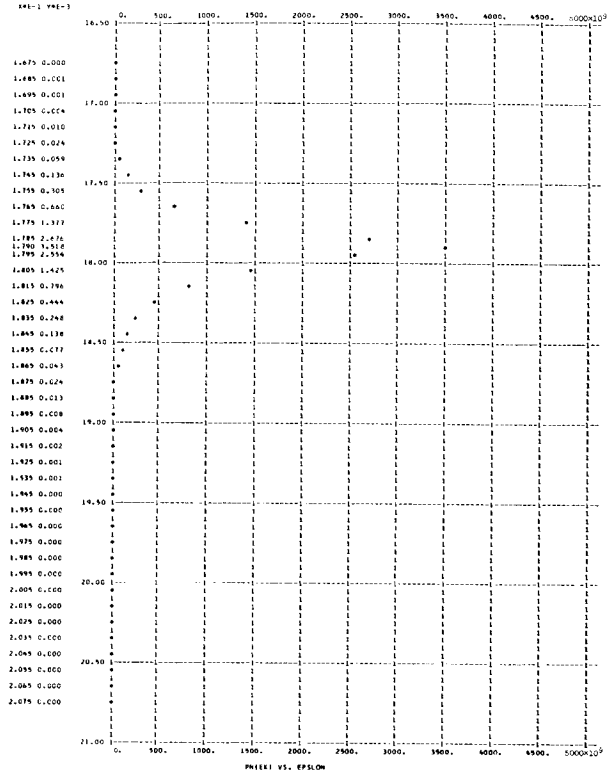
NEM = 0.14370953E 24 NEE = 0.13092907E 13 VXAV = 0.21321292E 09 KEXAV = 0.12925104E 02 KEXFL = 0.27561839E 10

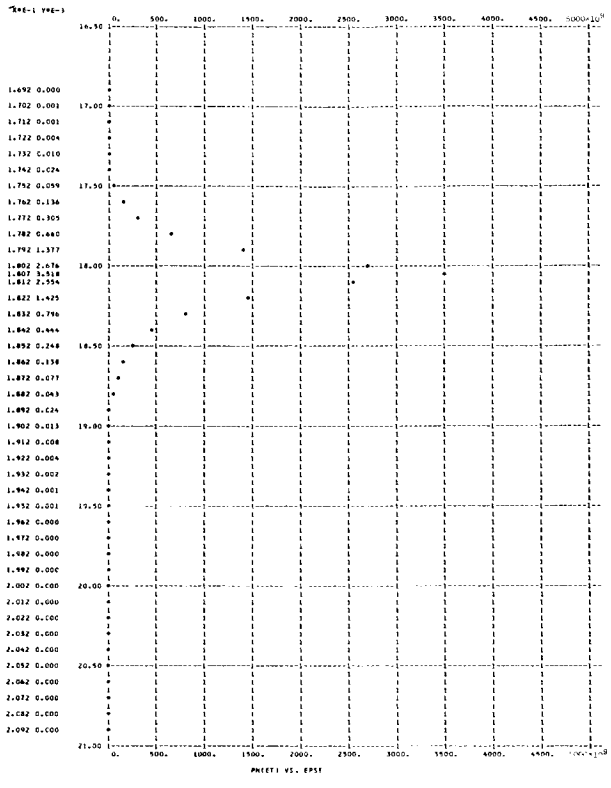
J = 0.447211E 02 KETAV= 0.130974E 02 KETFL= 0.279293E 10 TZERO = 0.101327E 06 TD = 0.134027E 04

Figure 3. - Continued.


XAE-1 YAE-2
1.175 0.000
1.185 0.000
1.195 0.001
1.205 0.001
1.215 0.004
1.225 0.010
1.235 0.023
1.245 0.054
1.255 0.121
1.265 0.264
1.275 0.551
1.285 1.074
1.290 1.414
1.295 1.028
1.305 0.575
1.315 0.322
1.325 0.180
1.335 0.101
1.345 0.056
1.355 0.032
1.365 0.018
1.375 0.010
1.385 0.006
1.395 0.003
1.405 0.002
1.415 0.001
1.425 0.001
1.435 0.000
1.445 0.000
1.455 0.000
1.465 0.000
1.475 0.000
1.485 0.000
1.495 0.000
1.505 0.000
1.515 0.000
1.525 0.000
1.535 0.000
1.545 0.000
1.555 0.000
1.565 0.000
1.575 0.000
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
JIEAI/DELEX VS. EPSLON


XAE-1 YAE-2
1.192 0.000
1.202 0.000
1.212 0.001
1.222 0.001
1.232 0.004
1.242 0.010
1.252 0.023
1.262 0.054
1.272 0.121
1.282 0.264
1.292 0.551
1.302 1.074
1.307 1.414
1.312 1.028
1.322 0.575
1.332 0.322
1.342 0.180
1.352 0.101
1.362 0.056
1.372 0.032
1.382 0.018
1.392 0.010
1.402 0.006
1.412 0.003
1.422 0.002
1.432 0.001
1.442 0.001
1.452 0.000
1.462 0.000
1.472 0.000
1.482 0.000
1.492 0.000
1.502 0.000
1.512 0.000
1.522 0.000
1.532 0.000
1.542 0.000
1.552 0.000
1.562 0.000
1.572 0.000
1.582 0.000
1.592 0.000
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
JIETI/DELET VS. EPST



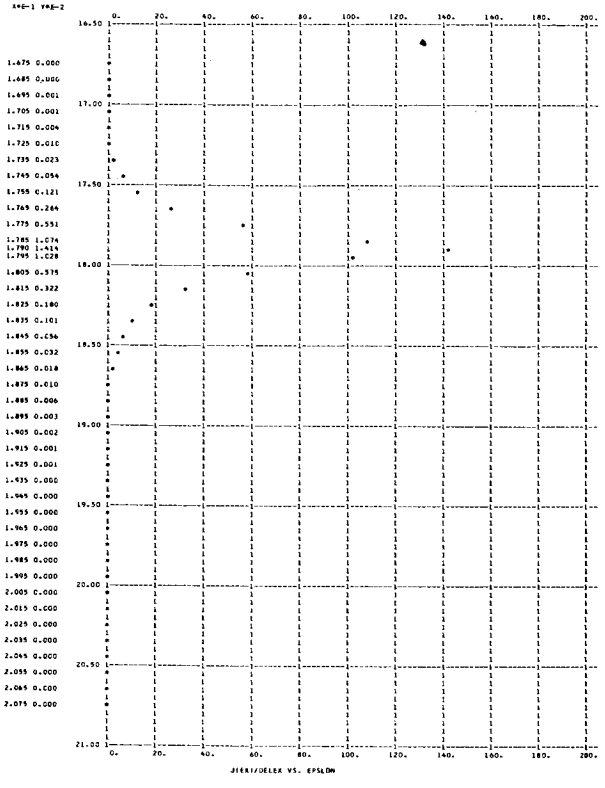


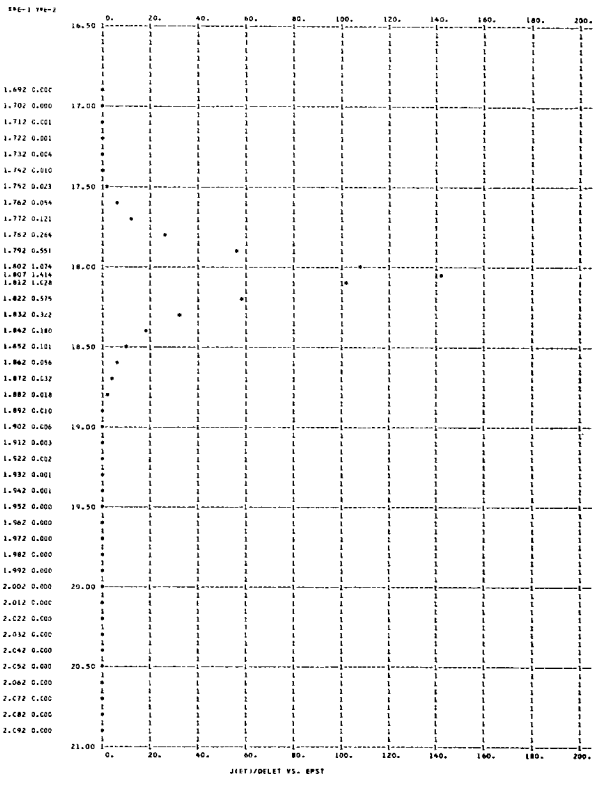
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 4.00 AMU = 15.00 EVMAX = 17.8901

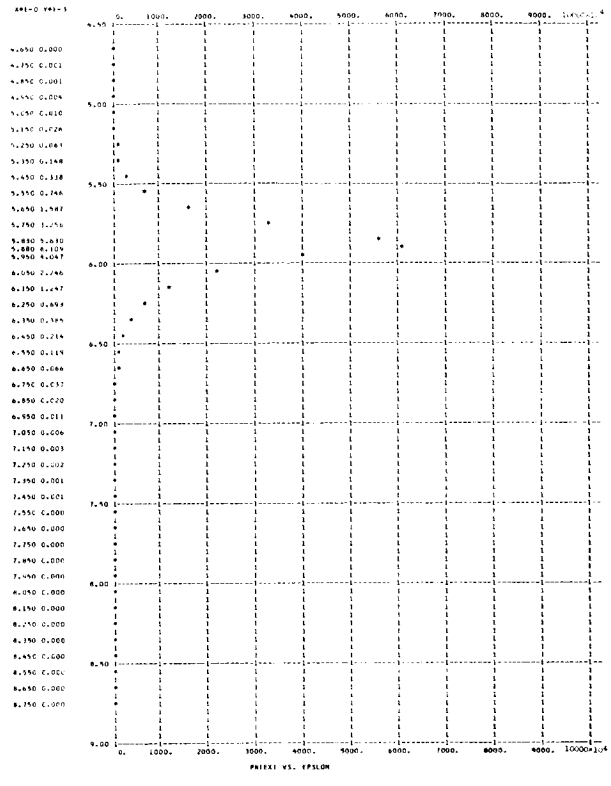
NEM = 0.26399449E 24 NEE = 0.11117517E 13 VXAV = 0.25109649E 09 KEXAV = 0.17925605E 02 KEXFL = 0.45013837E 10

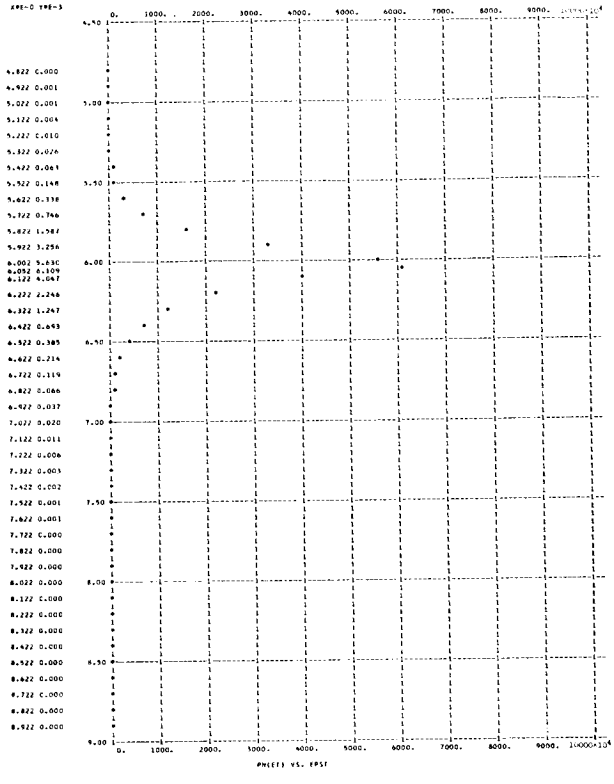
J = 0.447209E 02 KETAV= 0.180979E 02 KETFL= 0.454466E 10 TZERO = 0.140013E 06 TD = 0.133832E 04

Figure 3. - Continued.


0. 20. 40. 60. 80. 100. 120. 140. 160. 180. 200.
16.50
17.00
17.50
18.00
18.50
19.00
19.50
20.00
20.50
21.00
JIERI/DELEX VS. EPSLON


0. 20. 40. 60. 80. 100. 120. 140. 160. 180. 200.
16.50
17.00
17.50
18.00
18.50
19.00
19.50
20.00
20.50
21.00
JIERI/DELET VS. EPST



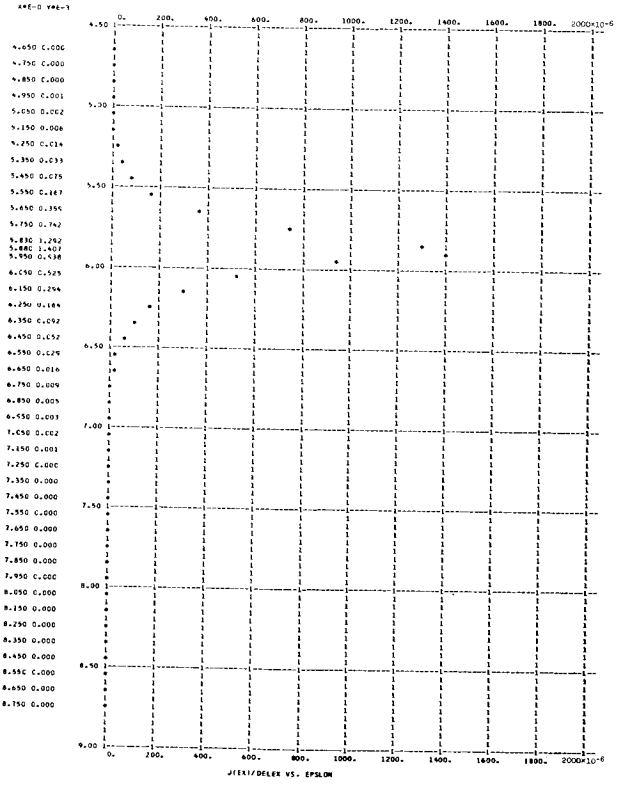


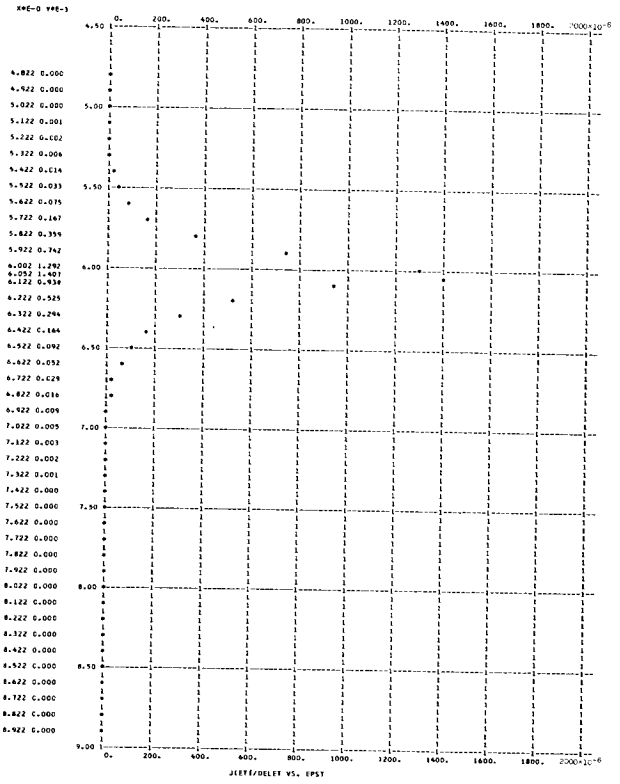
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 6.00 AMU = 1.00 EVMAX = 5.8601

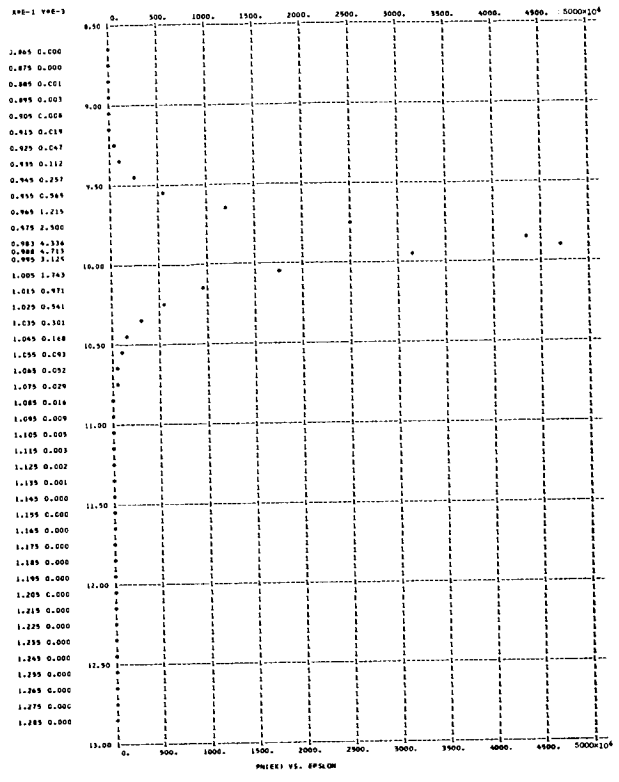
NEM = 0.46731979E 22 NEE = 0.21099719E 08 VXAV = 0.14394789E 09 KEXAV = 0.58929361E 01 KEXFL = 0.84884162E 09

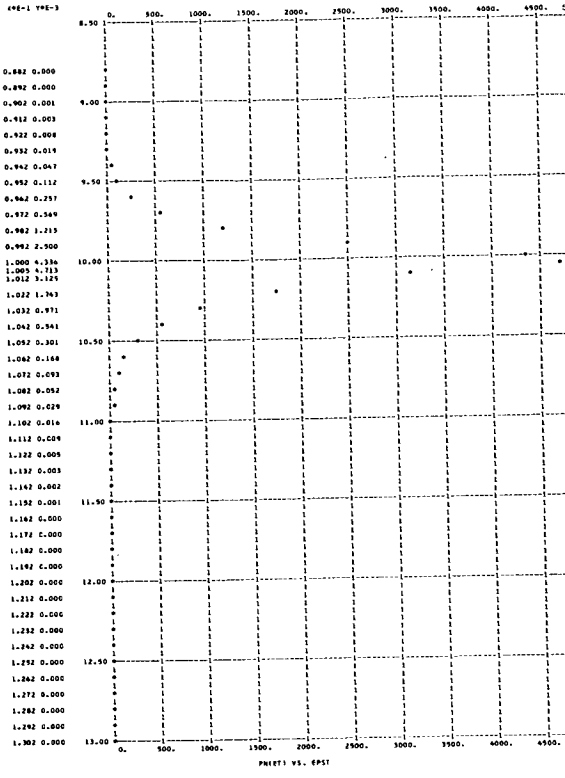
J = 0.486569E-03 KETAV= 0.606528E 01 KETFL= 0.873650E 09 TZERO = 0.469234E 05 TD = 0.134847E 04

Figure 3. - Continued.


X*E-0 Y*E-1
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000*10-6
4.50
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
4.650 0.000
4.750 0.000
4.850 0.000
4.950 0.001
5.050 0.002
5.150 0.006
5.250 0.014
5.350 0.033
5.450 0.075
5.550 0.167
5.650 0.356
5.750 0.742
5.830 1.292
5.886 1.407
5.950 0.938
6.050 0.525
6.150 0.264
6.250 0.104
6.350 0.092
6.450 0.052
6.550 0.029
6.650 0.016
6.750 0.009
6.850 0.005
6.950 0.003
7.050 0.002
7.150 0.001
7.250 0.000
7.350 0.000
7.450 0.000
7.550 0.000
7.650 0.000
7.750 0.000
7.850 0.000
7.950 0.000
8.050 0.000
8.150 0.000
8.250 0.000
8.350 0.000
8.450 0.000
8.550 0.000
8.650 0.000
8.750 0.000
JEEF1/DELEF VS. EPSLON


X*E-0 Y*E-1
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000*10-6
4.50
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
4.822 0.000
4.922 0.000
5.022 0.000
5.122 0.001
5.222 0.002
5.322 0.006
5.422 0.014
5.522 0.033
5.622 0.075
5.722 0.167
5.822 0.356
5.922 0.742
6.002 1.292
6.052 1.407
6.122 0.938
6.222 0.525
6.322 0.264
6.422 0.104
6.522 0.092
6.622 0.052
6.722 0.029
6.822 0.016
6.922 0.009
7.022 0.005
7.122 0.003
7.222 0.002
7.322 0.001
7.422 0.000
7.522 0.000
7.622 0.000
7.722 0.000
7.822 0.000
7.922 0.000
8.022 0.000
8.122 0.000
8.222 0.000
8.322 0.000
8.422 0.000
8.522 0.000
8.622 0.000
8.722 0.000
8.822 0.000
8.922 0.000
JEEF1/DELEF VS. EPST



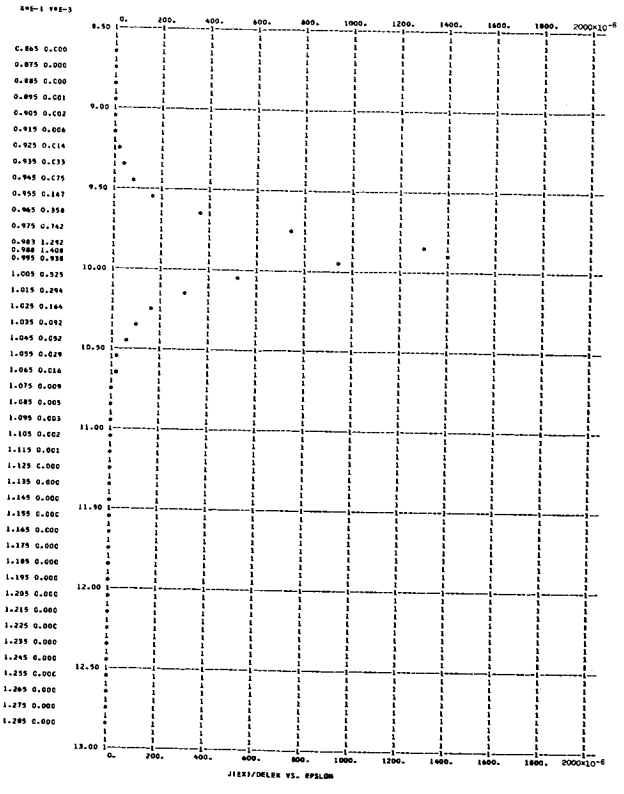


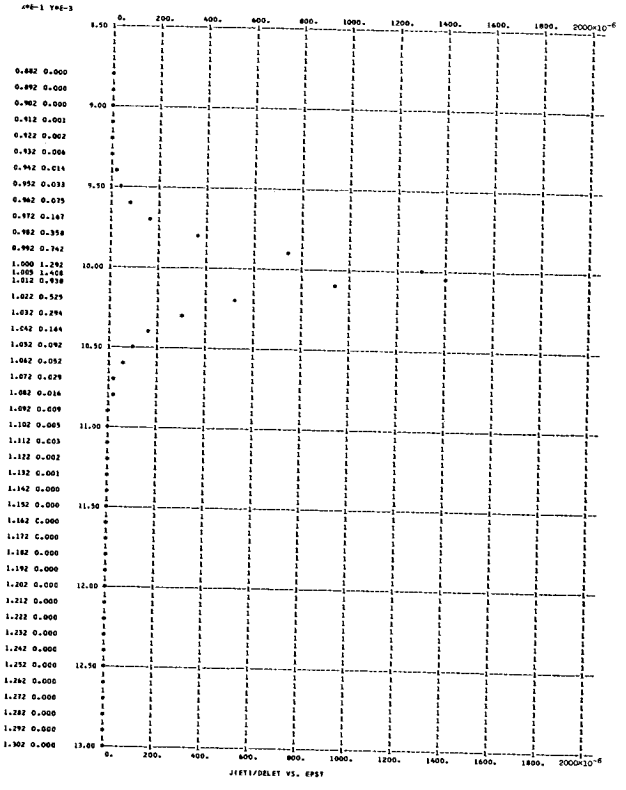
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 6.00 AMU = 5.00 EVMAX = 9.8601

NEM = 0.50836430E 23 NEE = 0.16281570E 08 VXAV = 0.18654477E 09 KEXAV = 0.98945134E 01 KEXFL = 0.18462089E 10

J = 0.486566E-03 KETAV= 0.100669E 02 KETFL= 0.187836E 10 TZERO = 0.778813E 05 TD = 0.134240E 04

Figure 3. - Continued.


X*E-1 Y*E-3
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000×10⁻⁶
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
13.00
0.865 0.000
0.875 0.000
0.885 0.000
0.895 0.001
0.905 0.002
0.915 0.006
0.925 0.014
0.935 0.033
0.945 0.075
0.955 0.167
0.965 0.358
0.975 0.742
0.983 1.292
0.988 1.408
0.995 0.938
1.005 0.525
1.015 0.294
1.025 0.164
1.035 0.092
1.045 0.052
1.055 0.029
1.065 0.016
1.075 0.009
1.085 0.005
1.095 0.003
1.105 0.002
1.115 0.001
1.125 0.000
1.135 0.000
1.145 0.000
1.155 0.000
1.165 0.000
1.175 0.000
1.185 0.000
1.195 0.000
1.205 0.000
1.215 0.000
1.225 0.000
1.235 0.000
1.245 0.000
1.255 0.000
1.265 0.000
1.275 0.000
1.285 0.000
J(ER)/DELER VS. EPSLON


X*E-1 Y*E-3
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000×10⁻⁶
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
13.00
0.882 0.000
0.892 0.000
0.902 0.000
0.912 0.001
0.922 0.002
0.932 0.006
0.942 0.014
0.952 0.033
0.962 0.075
0.972 0.167
0.982 0.358
0.992 0.742
1.000 1.292
1.005 1.408
1.012 0.938
1.022 0.525
1.032 0.294
1.042 0.164
1.052 0.092
1.062 0.052
1.072 0.029
1.082 0.016
1.092 0.009
1.102 0.005
1.112 0.003
1.122 0.002
1.132 0.001
1.142 0.000
1.152 0.000
1.162 0.000
1.172 0.000
1.182 0.000
1.192 0.000
1.202 0.000
1.212 0.000
1.222 0.000
1.232 0.000
1.242 0.000
1.252 0.000
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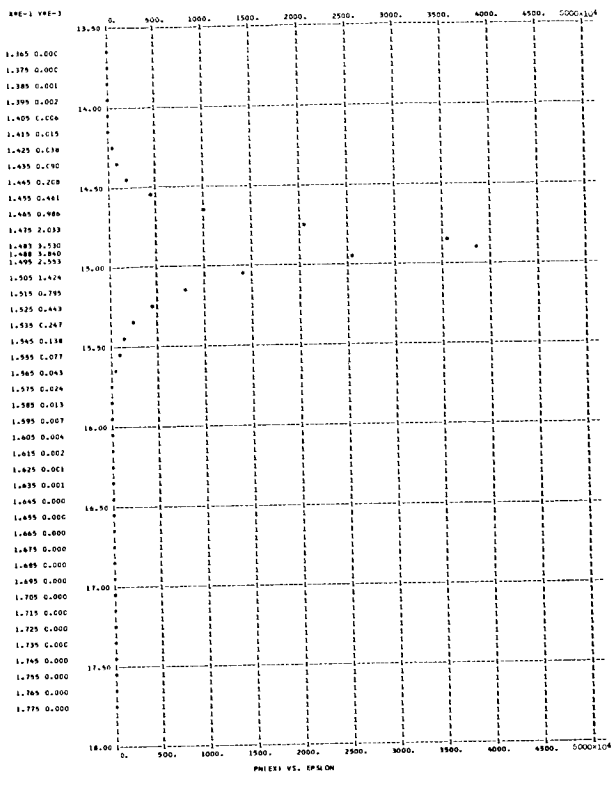
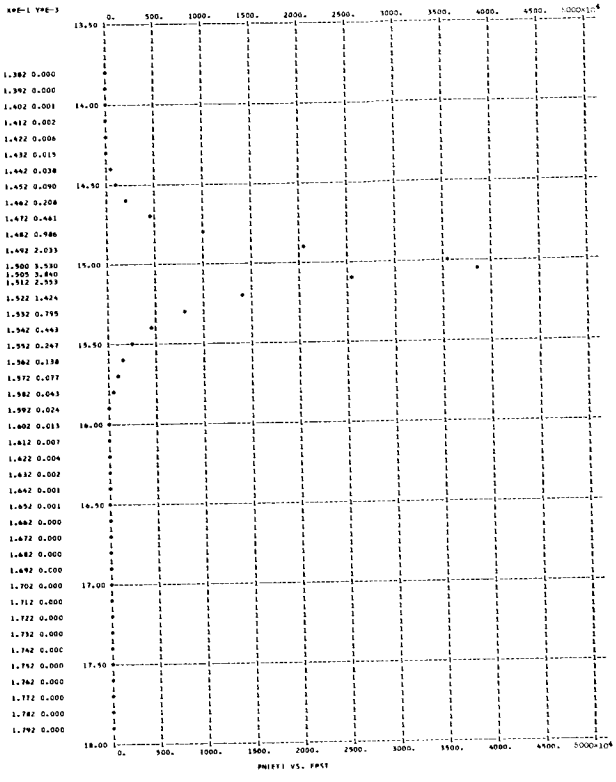
1.272 0.000
1.282 0.000
1.292 0.000
1.302 0.000
J(ET)/DELET VS. EPST



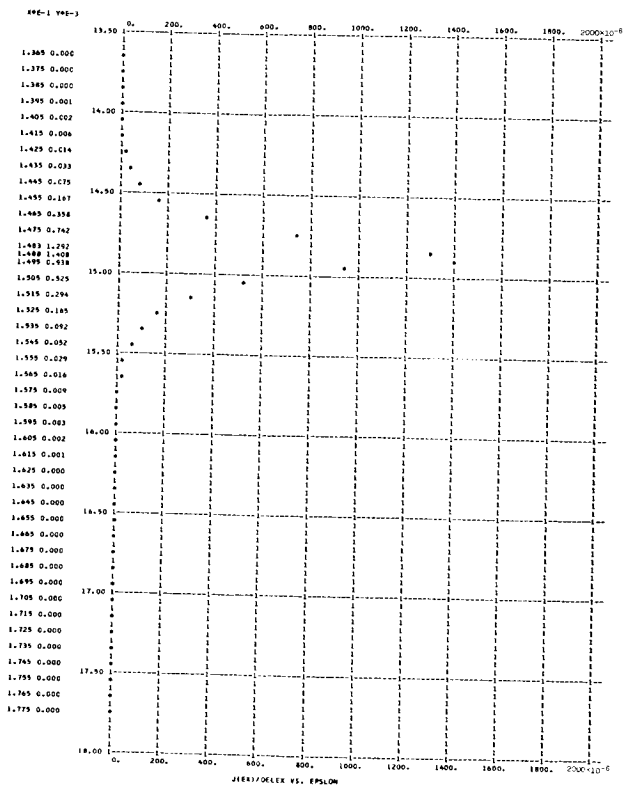


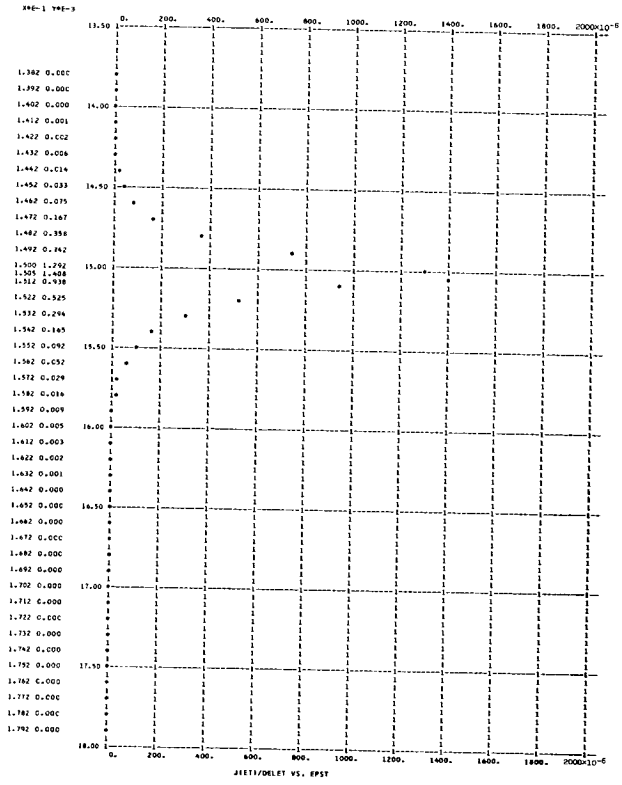
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 6.00 AMU = 10.00 EVMAX = 14.8601

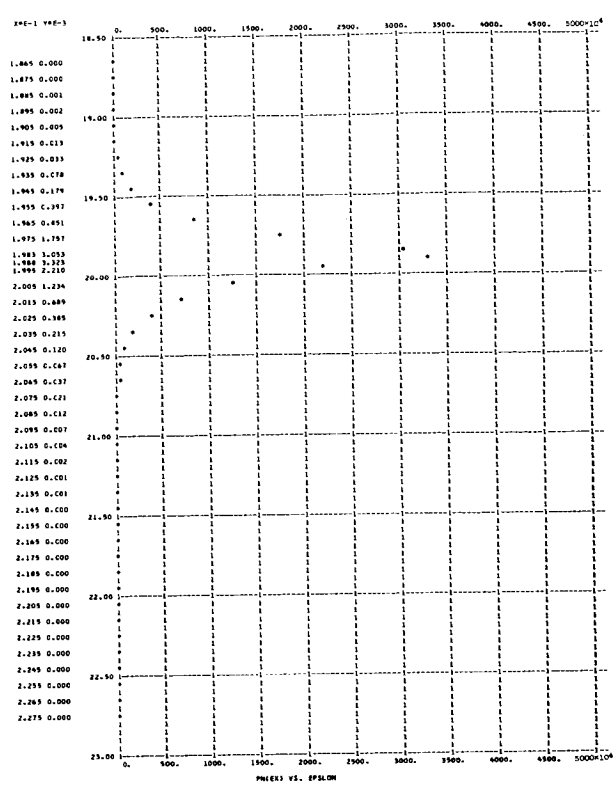
NEM = 0.14370953E 24 NEE = 0.13269475E 08 VXAV = 0.22888896E 09 KEXAV = 0.14895300E 02 KEXFL = 0.34097284E 10

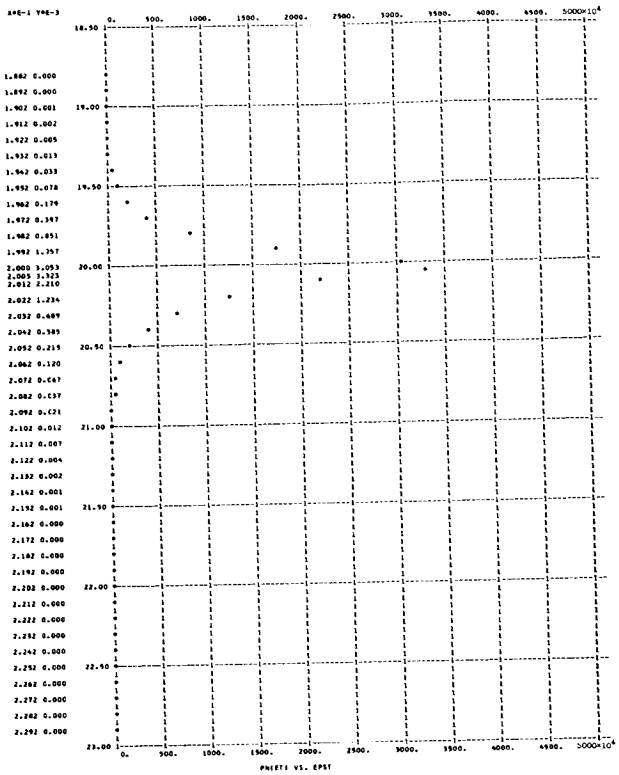
J = 0.486565E-03 KETAV= 0.150676E 02 KETFL= 0.344918E 10 TZERO = 0.116569E 06 TD = 0.133936E 04

Figure 3. - Continued.


JIER3/DELER VS. EPSLON


JIET3/DELET VS. EPST



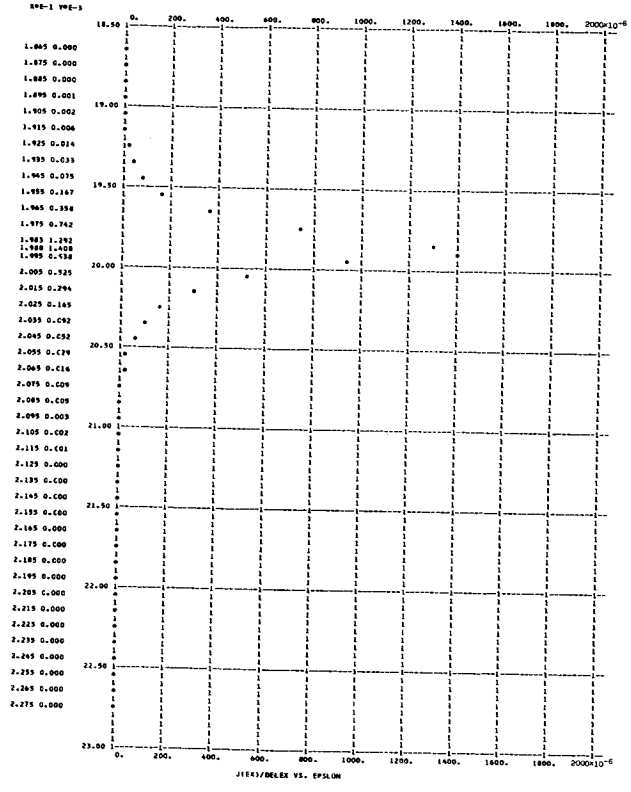


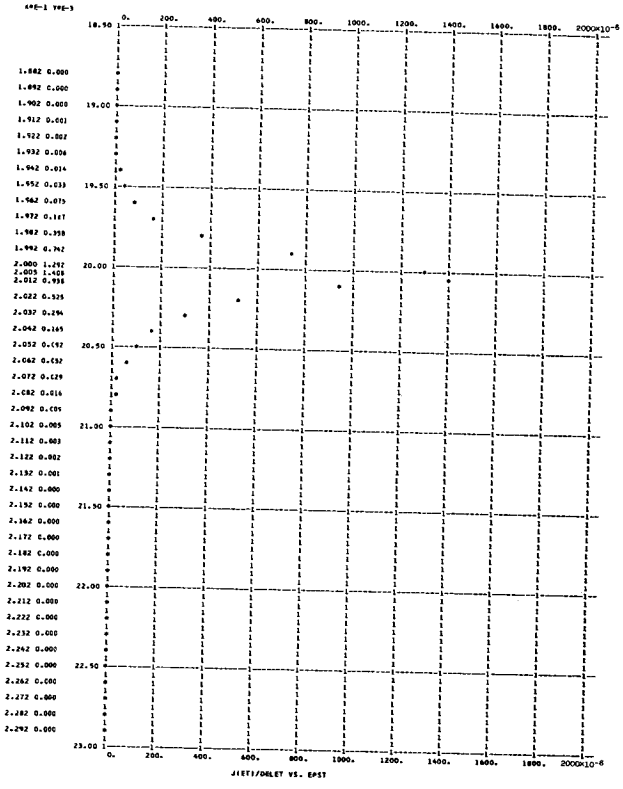
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 6.00 AMU = 15.00 EVMAX = 19.8601

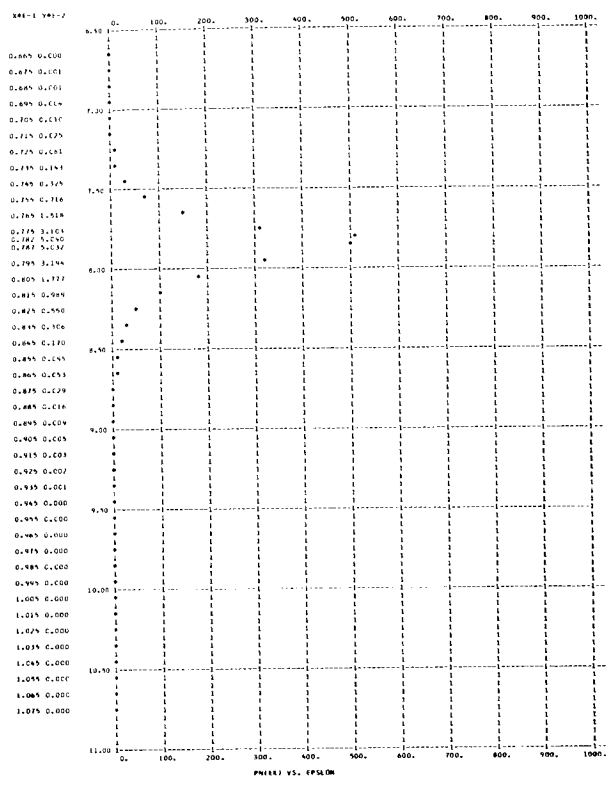
NEM = 0.26399449E 24 NEE = 0.11481372E 08 VXAV = 0.26453599E 09 KEXAV = 0.19895691E 02 KEXFL = 0.52634368E 10

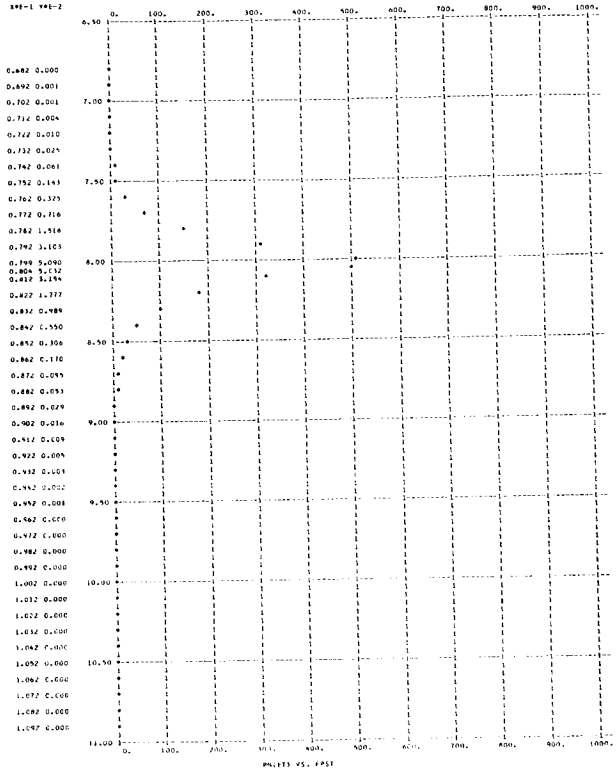
J = 0.486565E-03 KETAV= 0.200680E 02 KETFL= 0.530903E 10 TZERO = 0.155254E 06 TD = 0.133781E 04

Figure 3. - Continued.


0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000x10⁻⁶
18.50
19.00
19.50
20.00
20.50
21.00
21.50
22.00
22.50
23.00
JIEK)/DELEX VS. EPSLON


0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000x10⁻⁶
18.50
19.00
19.50
20.00
20.50
21.00
21.50
22.00
22.50
23.00
JIETI/DELET VS. EPST



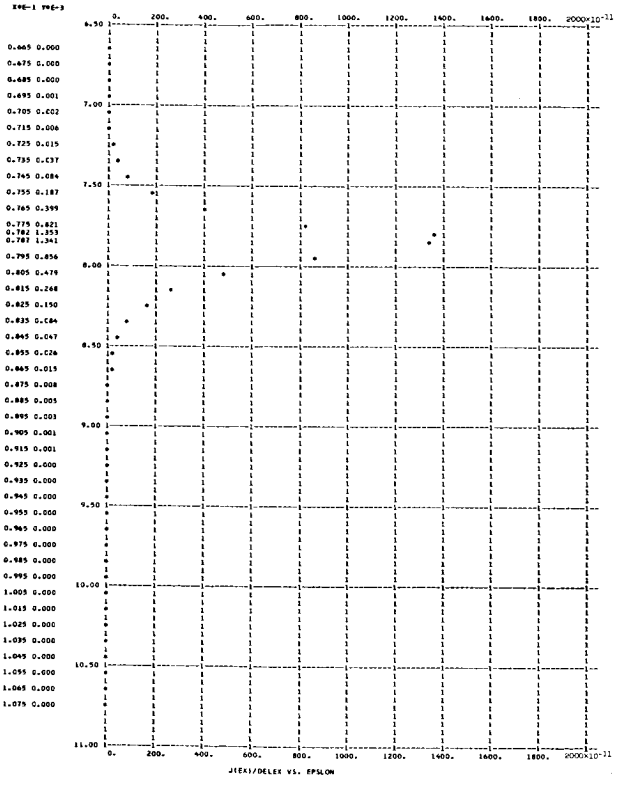


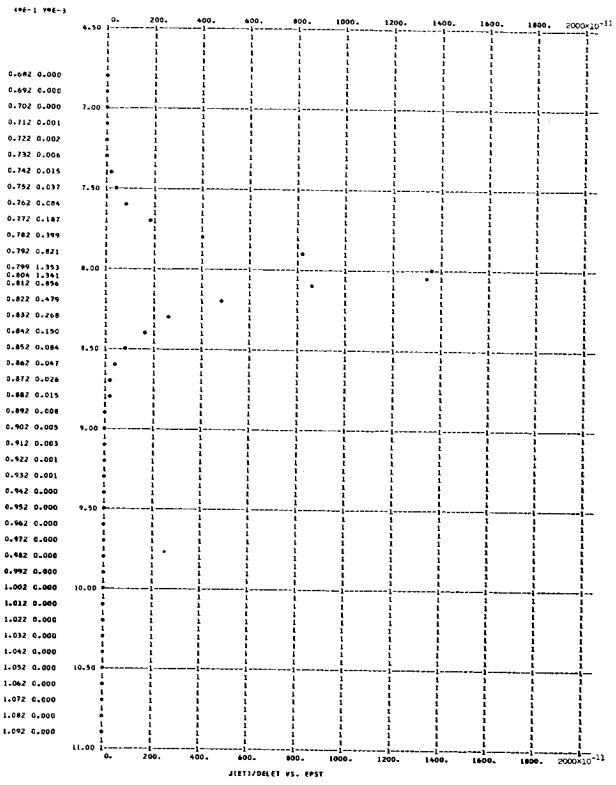
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 8.00 AMU = 1.00 EVMAX = 7.8451

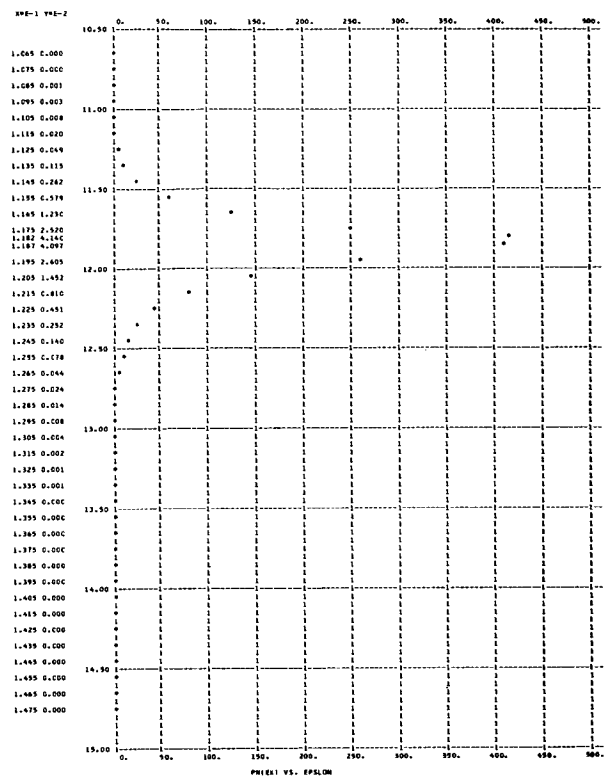
NEM = 0.46731979E 22 NEE = 0.18163203E 03 VXAV = 0.16645758E 09 KEXAV = 0.78788885E 01 KEXFL = 0.13119915E 10

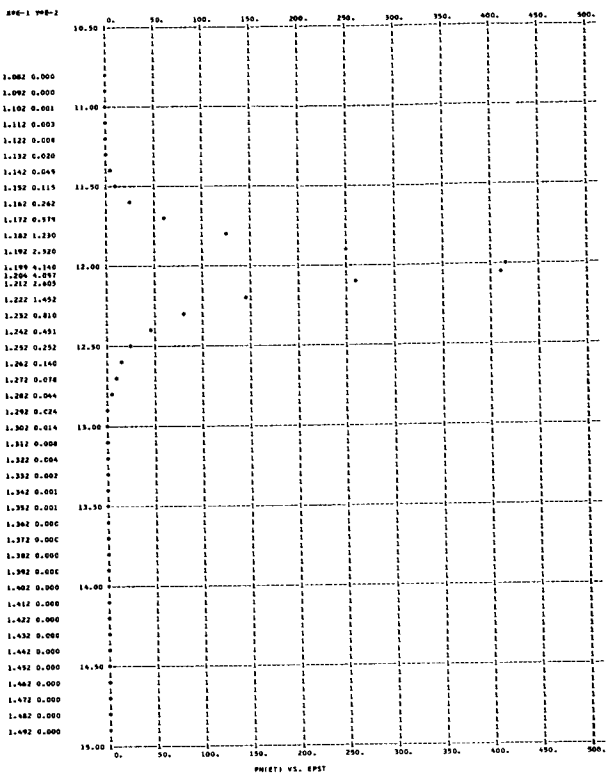
J = 0.484349E-08 KETAV= 0.805123E 01 KETFL= 0.134068E 10 TZERO = 0.622876E 05 TD = 0.134469E 04

Figure 3. - Continued.


0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000x10^-11
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
J(EX)/DELEK VS. EPSLON


0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000x10^-11
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
J(ET)/DELET VS. EPST



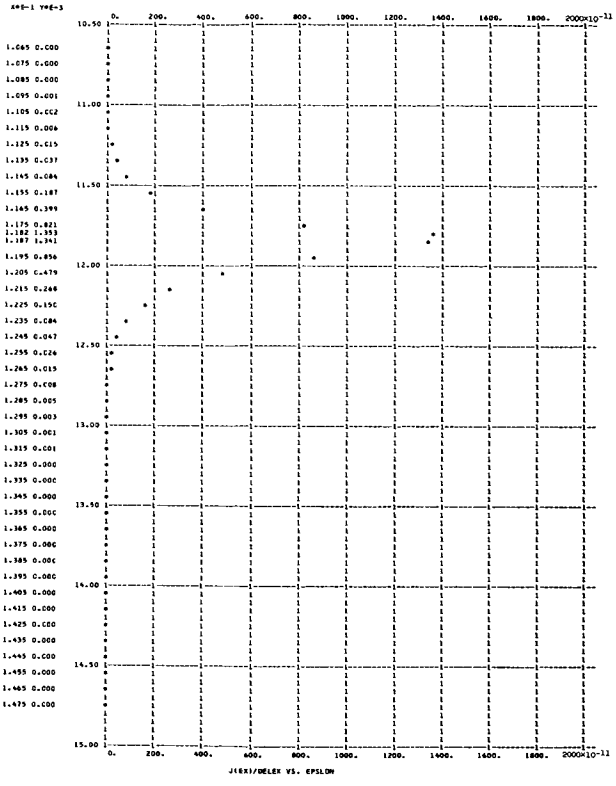


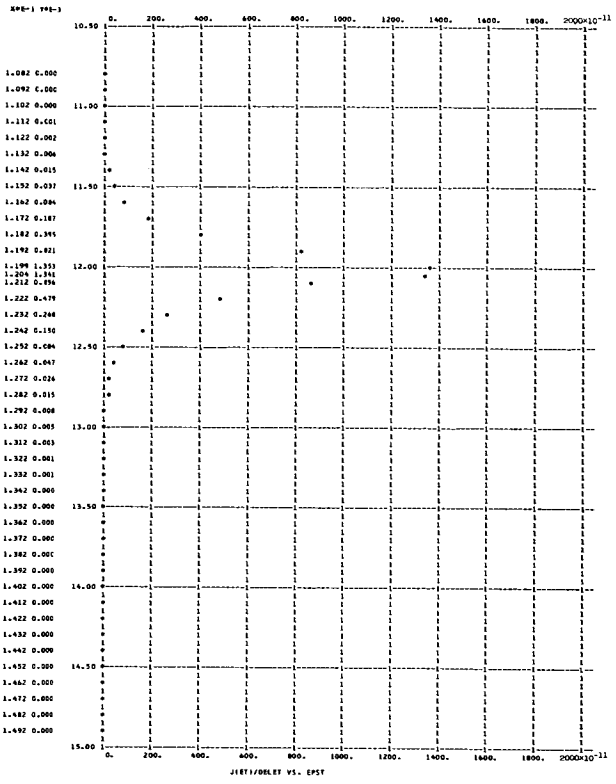
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 8.00 AMU = 5.00 EVMAX = 11.8451

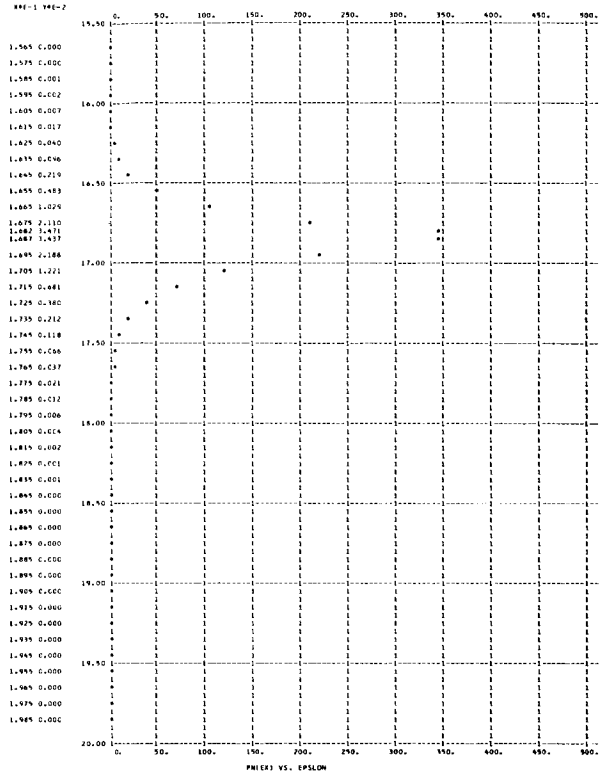
NEM = 0.50836430E 23 NEE = 0.14790902E 03 VXAV = 0.20440882E 09 KEXAV = 0.11879875E 02 KEXFL = 0.24287524E 10

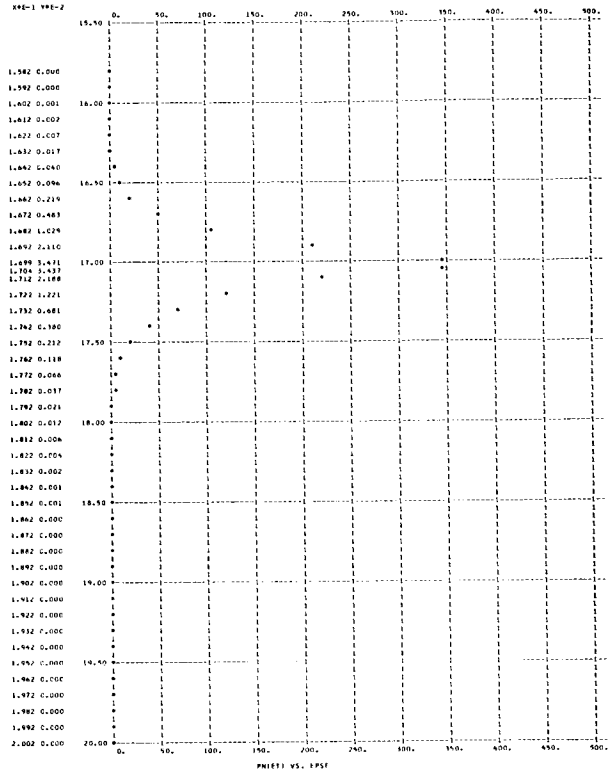
J = 0.484347E-08 KETAV= 0.120522E 02 KETFL= 0.246398E 10 TZERO = 0.932408E 05 TD = 0.134089E 04

Figure 3. - Continued.


0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000×10⁻¹¹
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
J(EX)/DELEX VS. EPSLON


0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000×10⁻¹¹
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
J(ET)/DELET VS. EPST



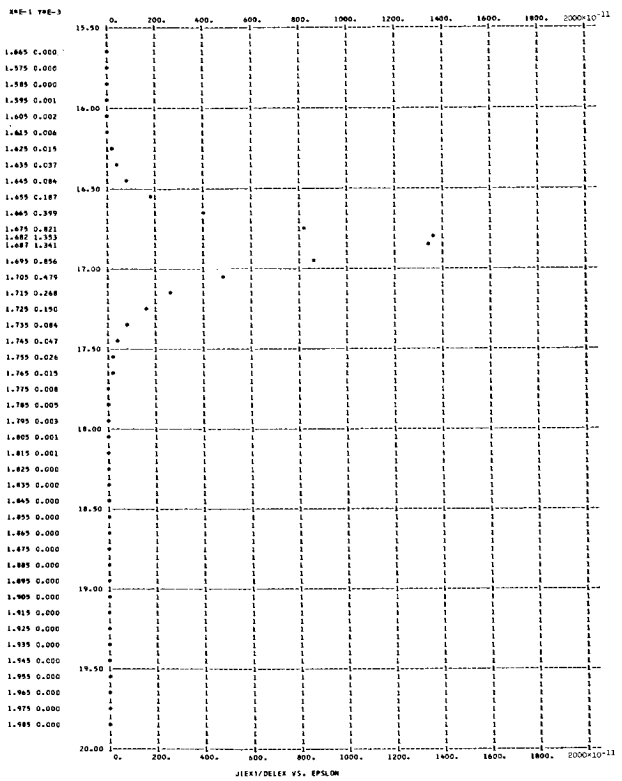


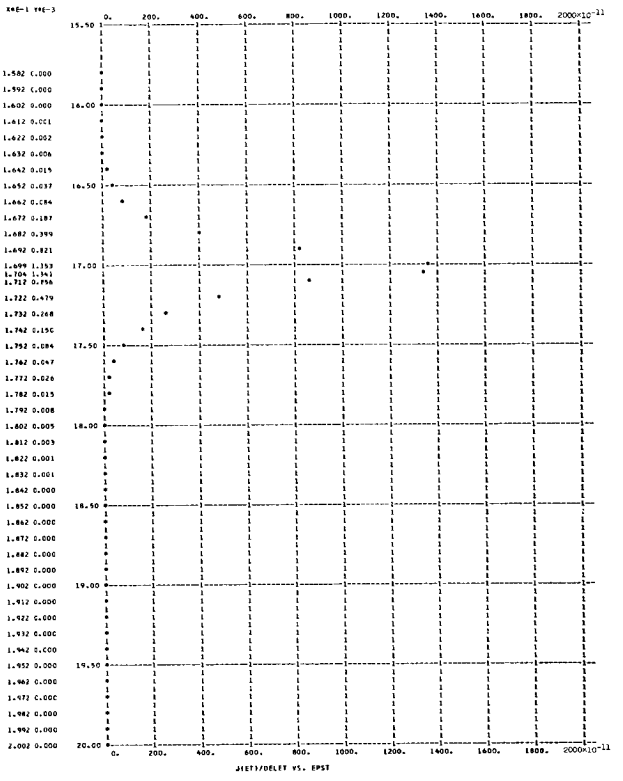
T = 0.20000000E 04 E = 0.10000002E 08 PHI = 0.00 AMU = 10.00 EVMAX = 16.8451

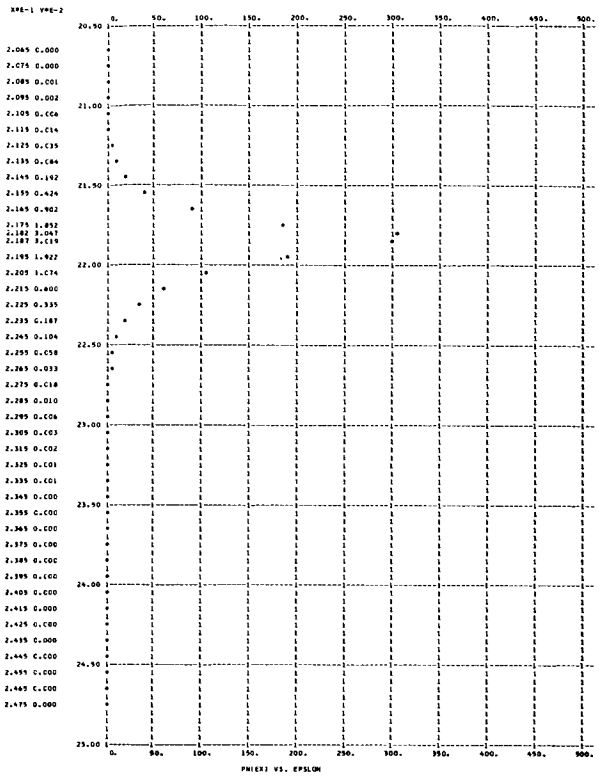
NEM = 0.14370953E 24 NEE = 0.12407918E 03 VXAV = 0.24366590E 09 KEXAV = 0.16880451E 02 KEXFL = 0.41135283E 10

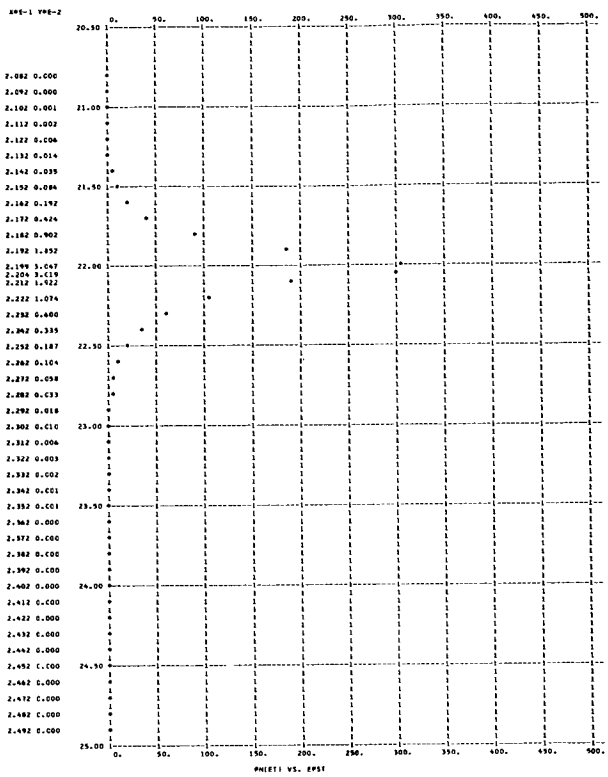
J = 0.484347E-08 KETAV= 0.170528E 02 KETFL= 0.415552E 10 TZERO = 0.131927E 06 TD = 0.133866E 04

Figure 3. - Continued.


X+E-1 Y+E-3
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000×10⁻¹¹
15.50
16.00
16.50
17.00
17.50
18.00
18.50
19.00
19.50
20.00
1.565 0.000
1.575 0.000
1.585 0.000
1.595 0.001
1.605 0.002
1.615 0.006
1.625 0.015
1.635 0.037
1.645 0.084
1.655 0.187
1.665 0.399
1.675 0.821
1.682 1.353
1.687 1.361
1.695 0.856
1.705 0.479
1.715 0.268
1.725 0.150
1.735 0.084
1.745 0.047
1.755 0.026
1.765 0.015
1.775 0.008
1.785 0.005
1.795 0.003
1.805 0.001
1.815 0.001
1.825 0.000
1.835 0.000
1.845 0.000
1.855 0.000
1.865 0.000
1.875 0.000
1.885 0.000
1.895 0.000
1.905 0.000
1.915 0.000
1.925 0.000
1.935 0.000
1.945 0.000
1.955 0.000
1.965 0.000
1.975 0.000
1.985 0.000
JIEX1/DELEX VS. EPSLON


X+E-1 Y+E-3
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000×10⁻¹¹
15.50
16.00
16.50
17.00
17.50
18.00
18.50
19.00
19.50
20.00
1.582 0.000
1.592 0.000
1.602 0.000
1.612 0.001
1.622 0.002
1.632 0.006
1.642 0.015
1.652 0.037
1.662 0.084
1.672 0.187
1.682 0.399
1.692 0.821
1.699 1.353
1.704 1.361
1.712 0.856
1.722 0.479
1.732 0.268
1.742 0.150
1.752 0.084
1.762 0.047
1.772 0.026
1.782 0.015
1.792 0.008
1.802 0.005
1.812 0.003
1.822 0.001
1.832 0.001
1.842 0.000
1.852 0.000
1.862 0.000
1.872 0.000
1.882 0.000
1.892 0.000
1.902 0.000
1.912 0.000
1.922 0.000
1.932 0.000
1.942 0.000
1.952 0.000
1.962 0.000
1.972 0.000
1.982 0.000
1.992 0.000
2.002 0.000
JIET3/DELET VS. EPST



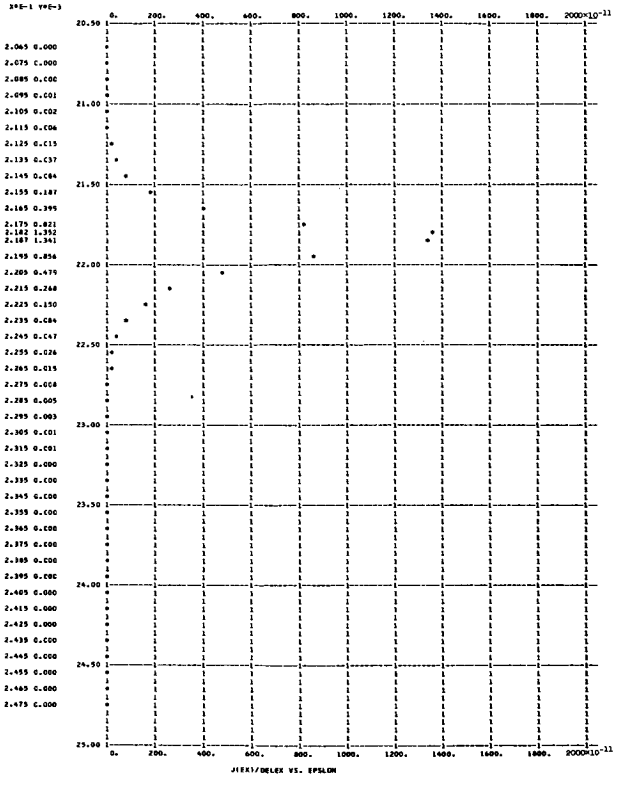


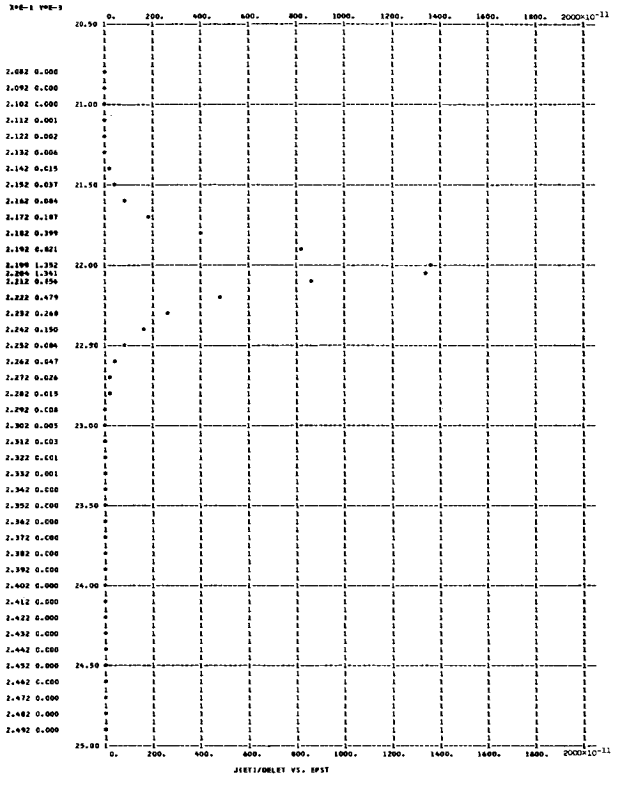
T = 0.2C000000E 04 E = 0.10000002E 08 PHI = 8.00 AMU = 15.00 EVMAX = 21.8451

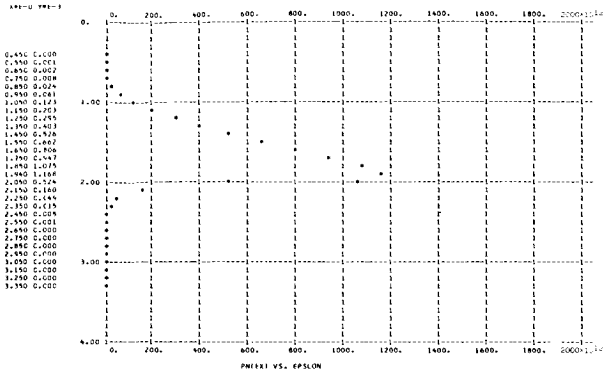
NEM = 0.26399449E 24 NEE = 0.10898247E 03 VXAV = 0.27741986E 09 KEXAV = 0.21880767E 02 KEXFL = 0.60704564E 10

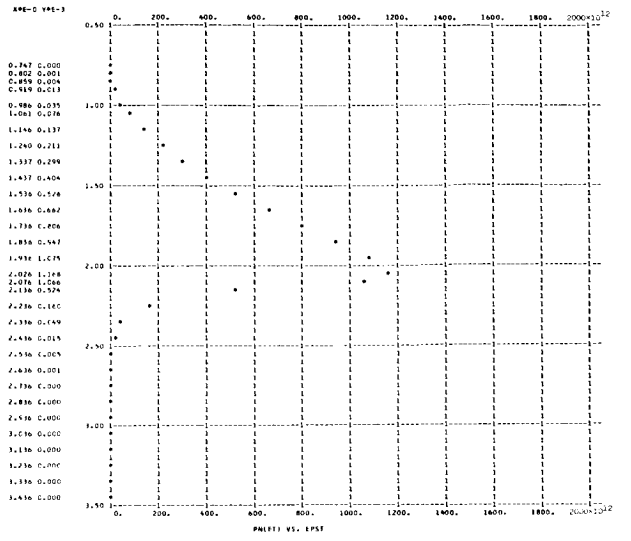
J = 0.484347E-08 KETAV= 0.220531E 02 KETFL= 0.611827E 10 TZERO = 0.170612E 06 TD = 0.133746E 04

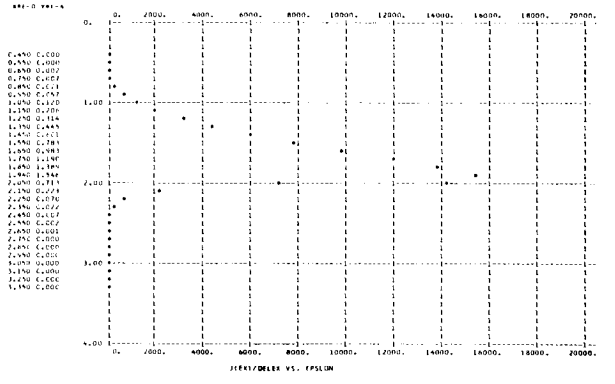
Figure 3. - Continued.

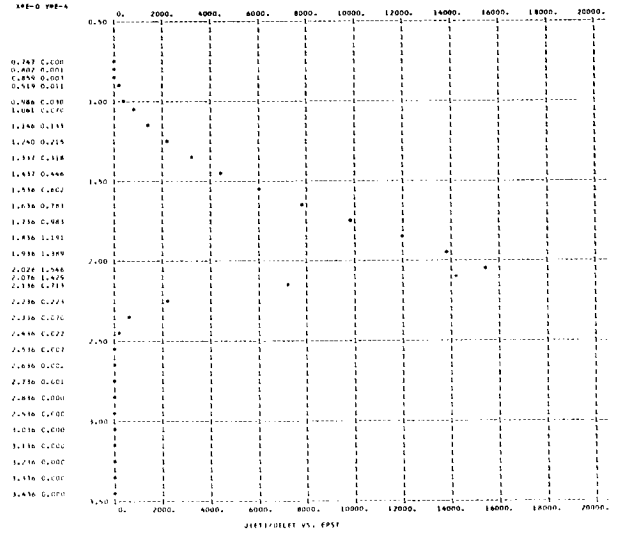

X*E-1 Y*E-3
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000X10-11
20.50
21.00
21.50
22.00
22.50
23.00
23.50
24.00
24.50
25.00
2.065 0.000
2.075 0.000
2.085 0.000
2.095 0.001
2.105 0.002
2.115 0.006
2.125 0.015
2.135 0.037
2.145 0.084
2.155 0.187
2.165 0.399
2.175 0.821
2.182 1.352
2.187 1.341
2.195 0.856
2.205 0.479
2.215 0.268
2.225 0.150
2.235 0.084
2.245 0.047
2.255 0.026
2.265 0.015
2.275 0.008
2.285 0.005
2.295 0.003
2.305 0.001
2.315 0.001
2.325 0.000
2.335 0.000
2.345 0.000
2.355 0.000
2.365 0.000
2.375 0.000
2.385 0.000
2.395 0.000
2.405 0.000
2.415 0.000
2.425 0.000
2.435 0.000
2.445 0.000
2.455 0.000
2.465 0.000
2.475 0.000
J(EX)/DELEX VS. EPSLON


X*E-1 Y*E-3
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000X10-11
20.50
21.00
21.50
22.00
22.50
23.00
23.50
24.00
24.50
25.00
2.082 0.000
2.092 0.000
2.102 0.000
2.112 0.001
2.122 0.002
2.132 0.006
2.142 0.015
2.152 0.037
2.162 0.084
2.172 0.187
2.182 0.399
2.192 0.821
2.198 1.352
2.204 1.341
2.212 0.856
2.222 0.479
2.232 0.268
2.242 0.150
2.252 0.084
2.262 0.047
2.272 0.026
2.282 0.015
2.292 0.008
2.302 0.005
2.312 0.003
2.322 0.001
2.332 0.001
2.342 0.000
2.352 0.000
2.362 0.000
2.372 0.000
2.382 0.000
2.392 0.000
2.402 0.000
2.412 0.000
2.422 0.000
2.432 0.000
2.442 0.000
2.452 0.000
2.462 0.000
2.472 0.000
2.482 0.000
2.492 0.000
J(ET)/DELET VS. EPST







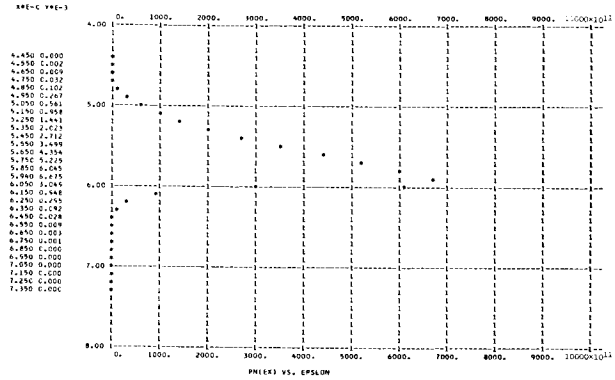


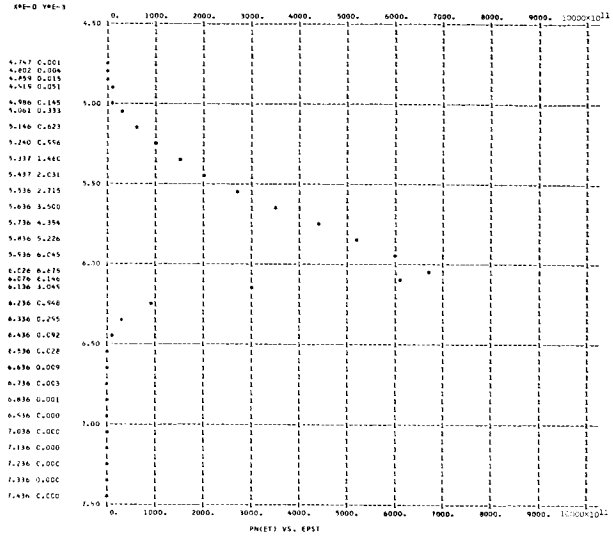
T = 1.00C00000E 03 E = 0.10000002E 08 PHI = 2.00 AMU = 1.00 EVMAX = 1.9800

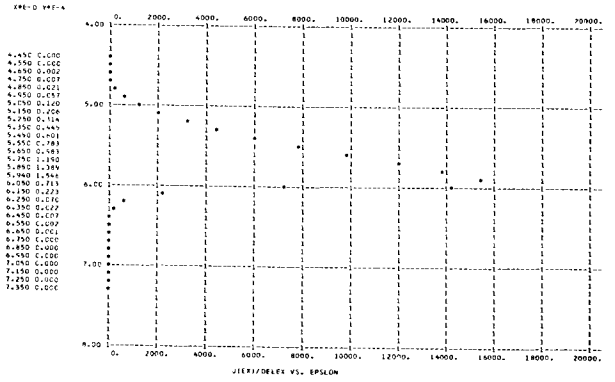
NEM = 0.45427783E 22 NEE = 0.70393503E 15 VXAV = 0.76970918E 08 KEXAV = 0.16969116E 01 KEXFL = 0.13247740E 09

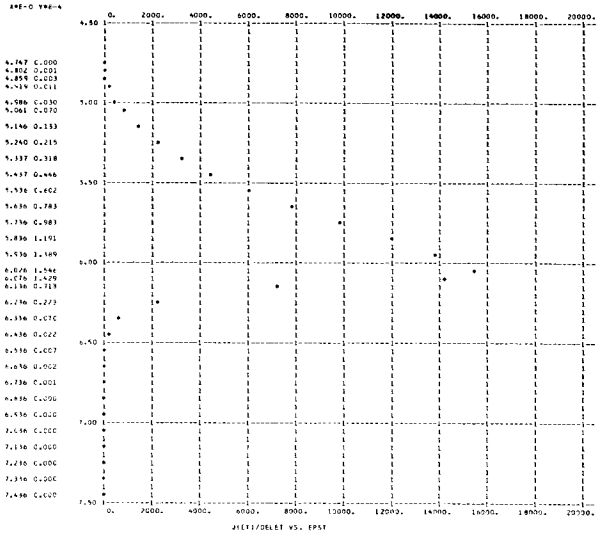
J = 0.868004E 04 KETAV= 0.178399E 01 KETFL= 0.139162E 09 TZERO = 0.138016E 05 TD = 0.770892E 03

Figure 3. - Continued.







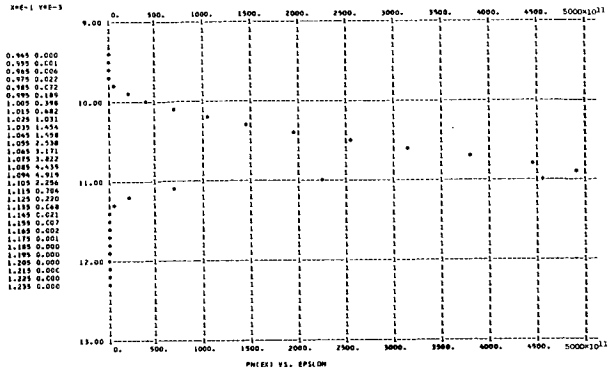


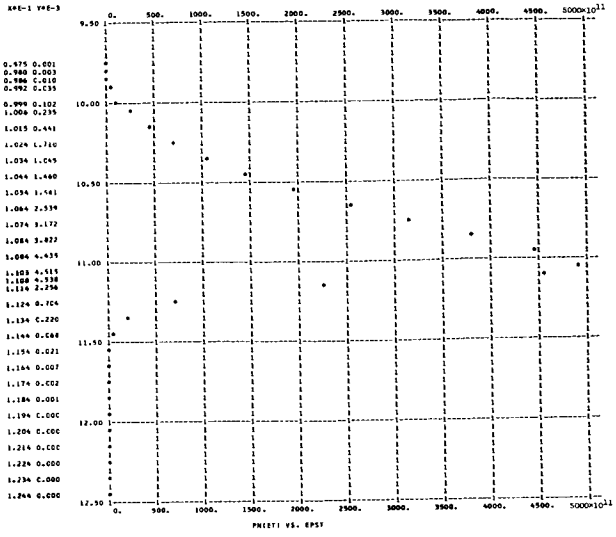
T = 1.00000000E 03 E = 0.10000002E 08 PHI = 2.00 AMU = 5.00 EVMAX = 5.9800

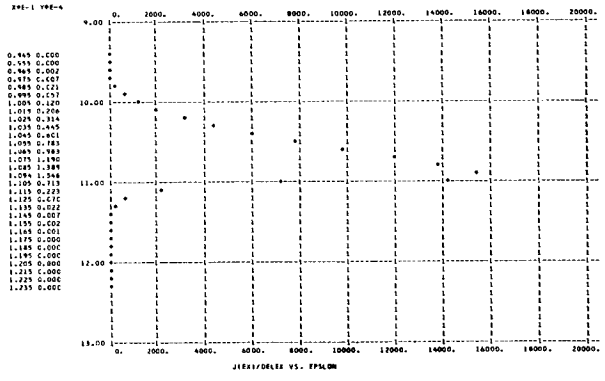
NEM = 0.50780506E 23 NEE = 0.38224369E 15 VXAV = 0.14173446E 09 KEXAV = 0.57145379E 01 KEXFL = 0.81088413E 09

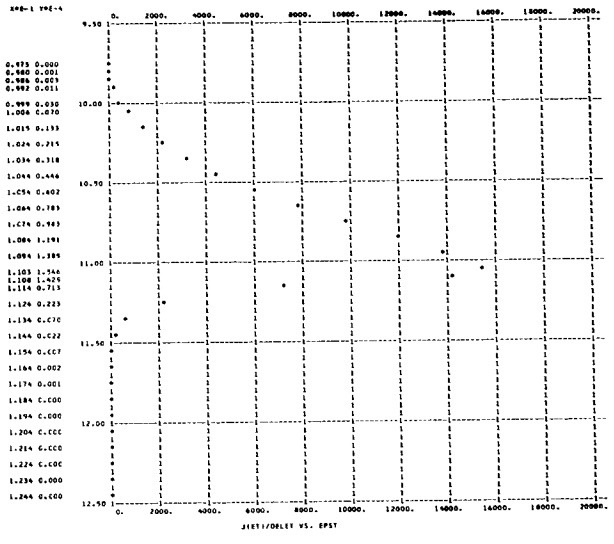
J = 0.867917E 04 KETAV= 0.580144E 01 KETFL= 0.823194E 09 TZERO = 0.448823E 05 TD = 0.698078E 03

Figure 3. - Continued.







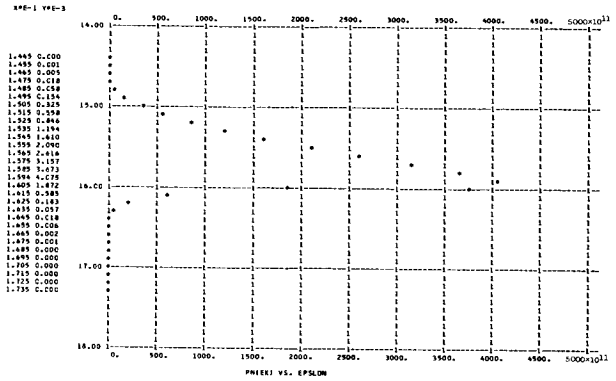


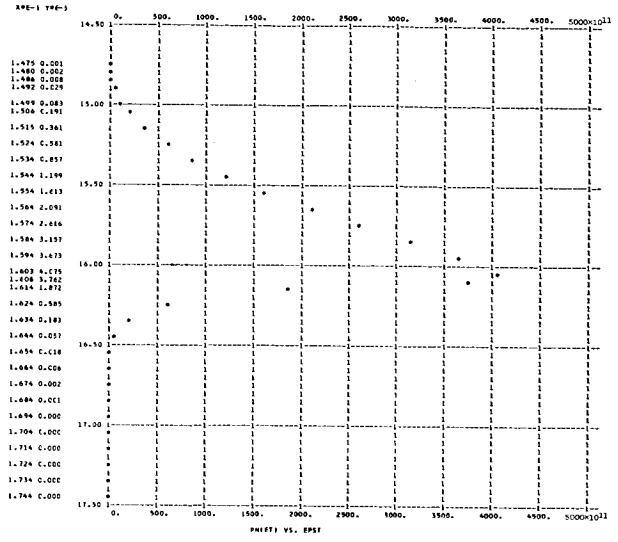
T = 1.00000000E 03 E = C.10000002E 08 PHI = 2.00 AMU = 10.00 EVMAX = 10.9800

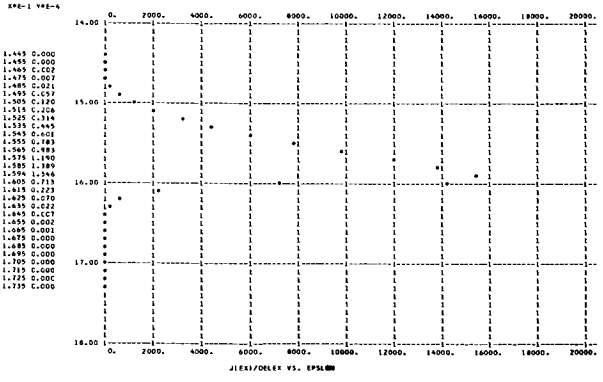
NEM = 0.14367002E 24 NEE = 0.27905279E 15 VXAV = 0.19416504E 09 KEXAV = 0.10717668E 02 KEXFL = 0.20814583E 10

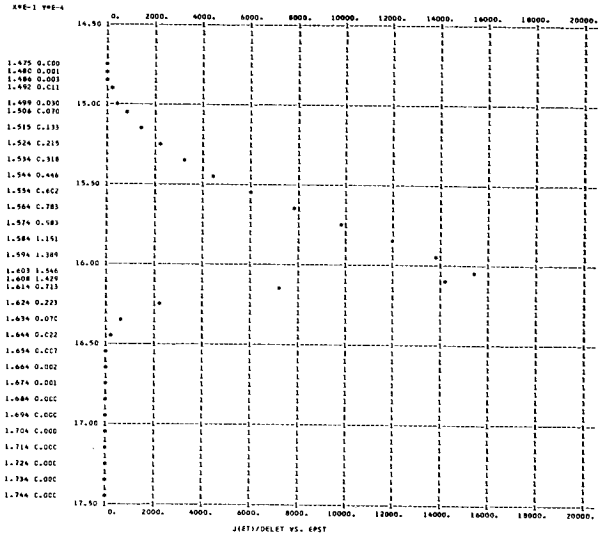
J = 0.867911E 04 KETAV= 0.108045E 02 KETFL= 0.209832E 10 TZERO = 0.835883E 05 TD = 0.685637E 03

Figure 3. - Continued.







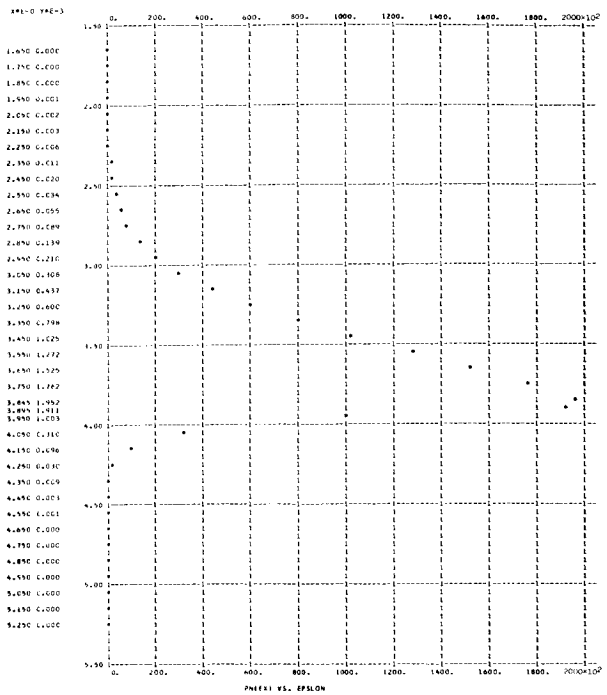


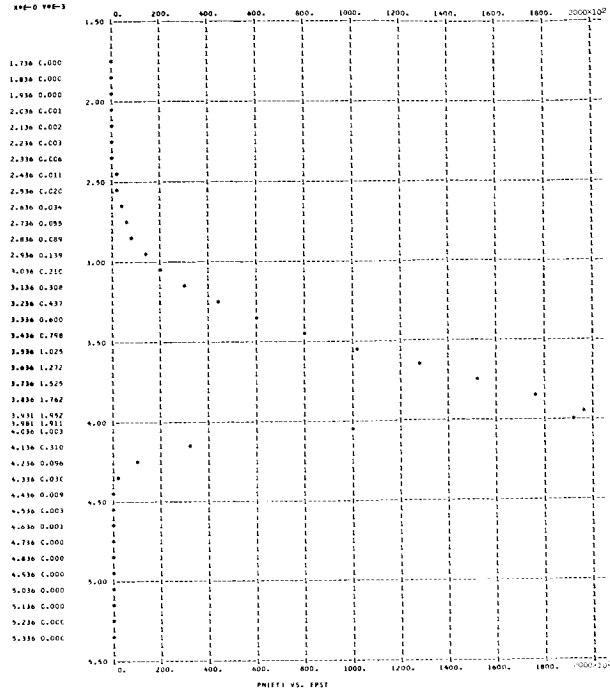
T = 1.00000000E 03 E = 0.10000002E 08 PHI = 2.00 AMU = 15.00 EVMAX = 15.9800

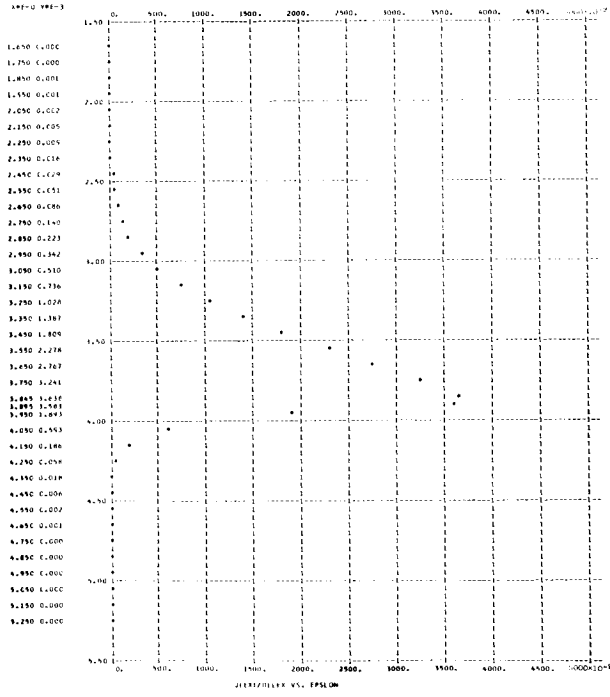
NEM = 0.26396224E 24 NEE = 0.23041304E 15 VXAV = 0.23512820E 09 KEXAV = 0.15718786E 02 KEXFL = 0.36964857E 10

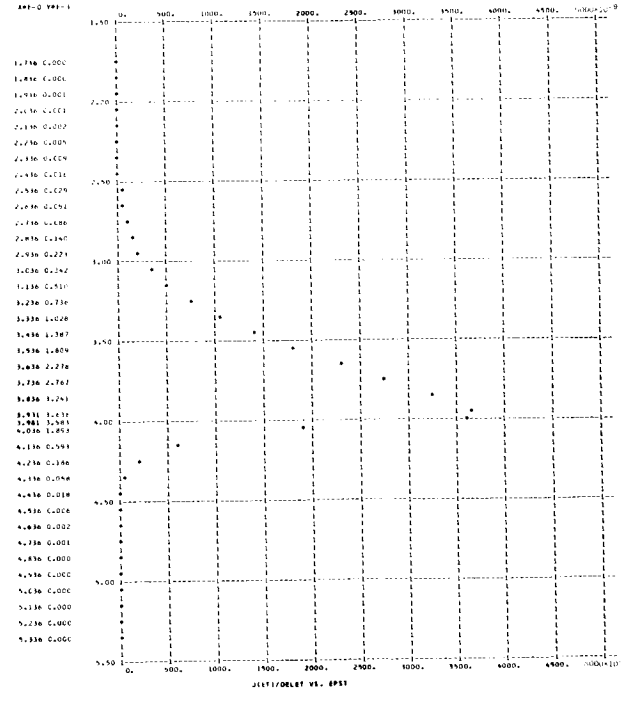
J = 0.867909E 04 KETAV= 0.158057E 02 KETFL= 0.371691E 10 TZERO = 0.122279E 06 TD = 0.681201E 03

Figure 3. - Continued.







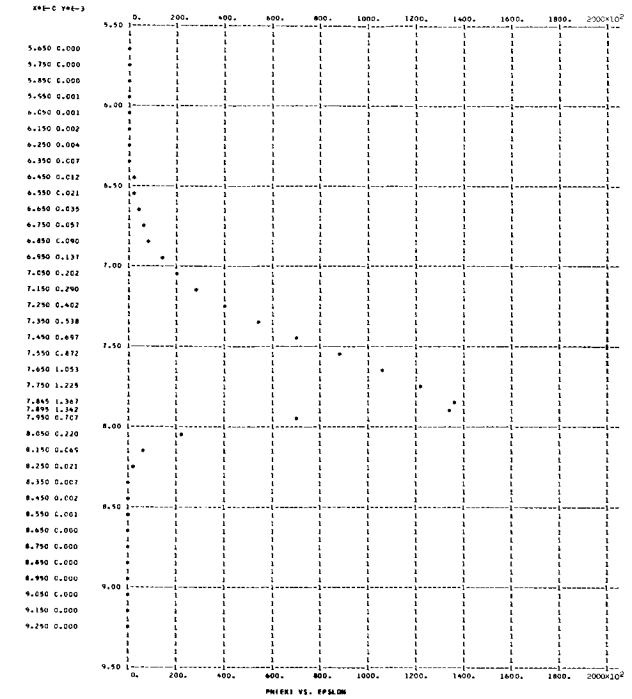


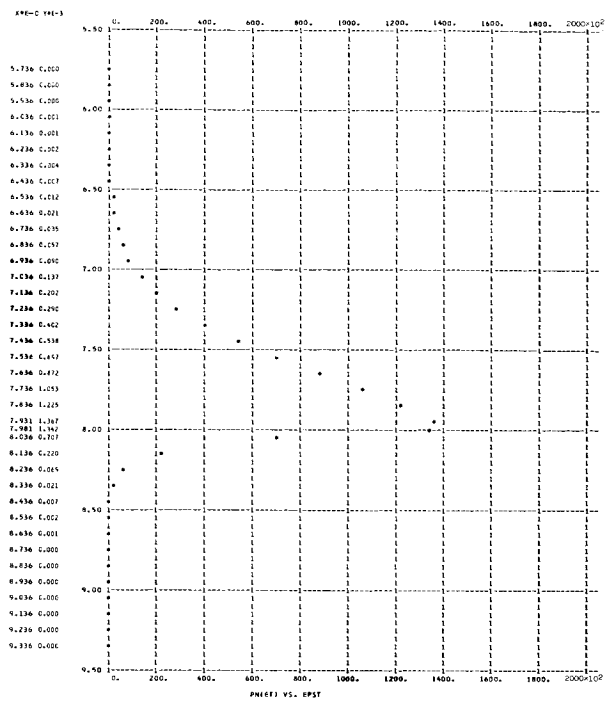
T = 1.00000000E 03 E = 0.10000002E 08 PHI = 4.00 AMU = 1.00 EVMAX = 3.8901

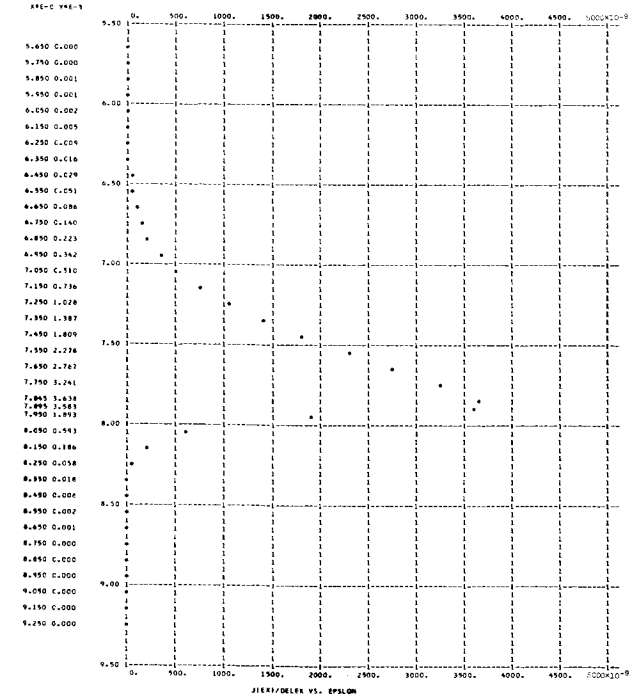
NEM = 0.45427783E 22 NEE = 0.11696364E 06 VXAV = 0.11234979E 09 KEXAV = 0.35955849E 01 KEXFL = 0.40550072E 09

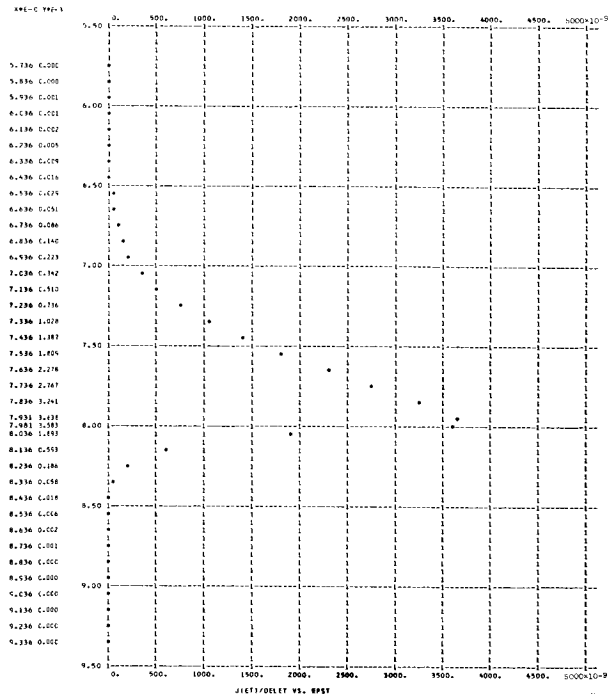
J = 0.210516E-05 KETAV= 0.368176E 01 KETFL= 0.415182E 09 TZERO = 0.284836E 05 TO = 0.720940E 03

Figure 3. - Continued.







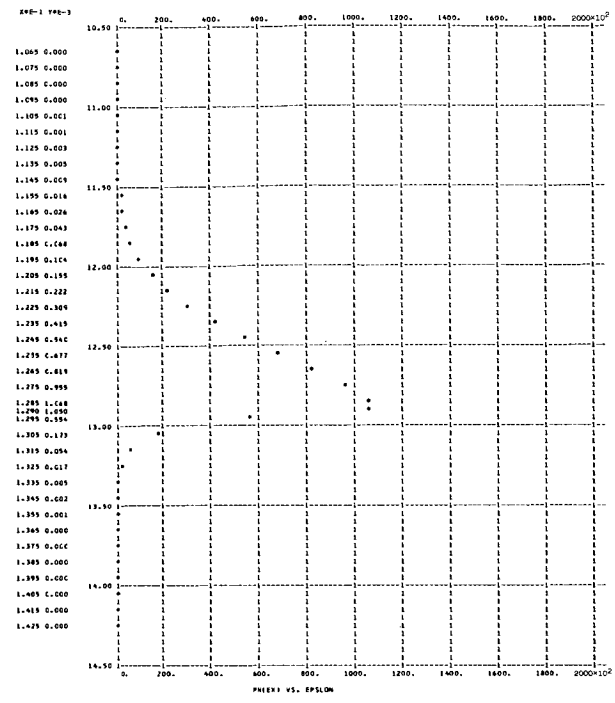


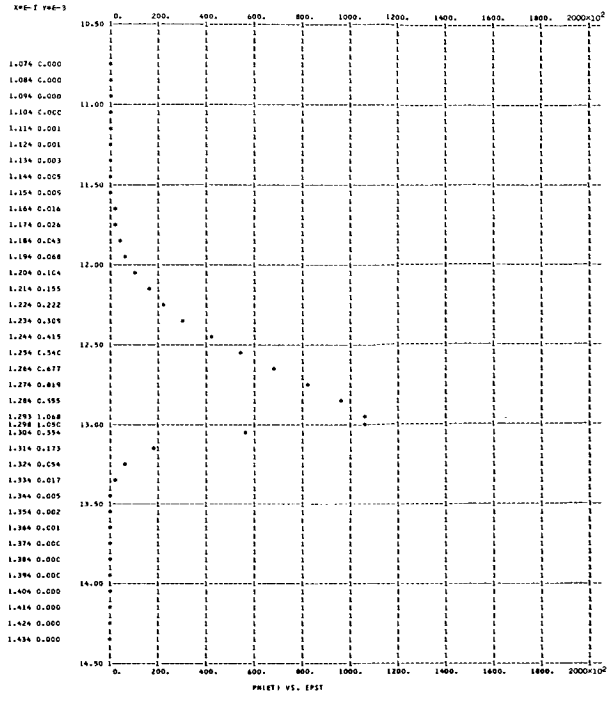
T = 1.00000000E 03 E = 0.10000002E 08 PHI = 4.00 AMU = 5.00 EVMAX = 7.8901

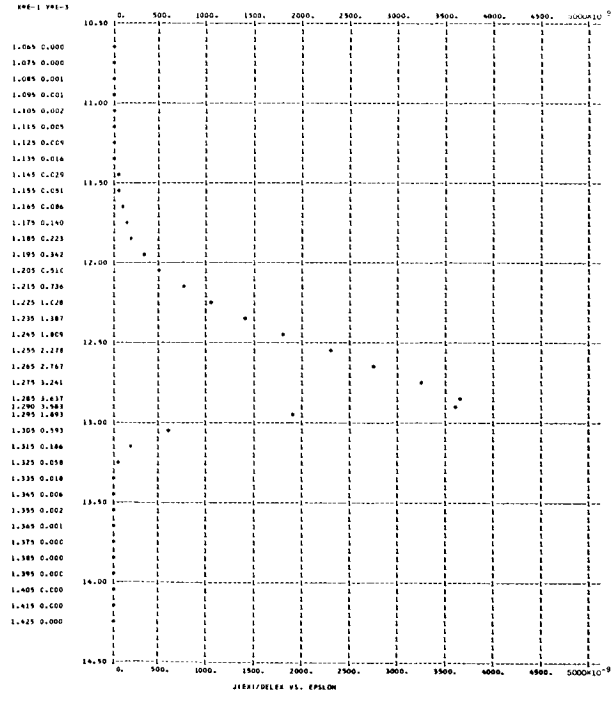
NEM = 0.50780506E 23 NEE = 0.80370844E 05 VXAV = 0.16349950E 09 KEXAV = 0.76030658E 01 KEXFL = 0.12441120E 10

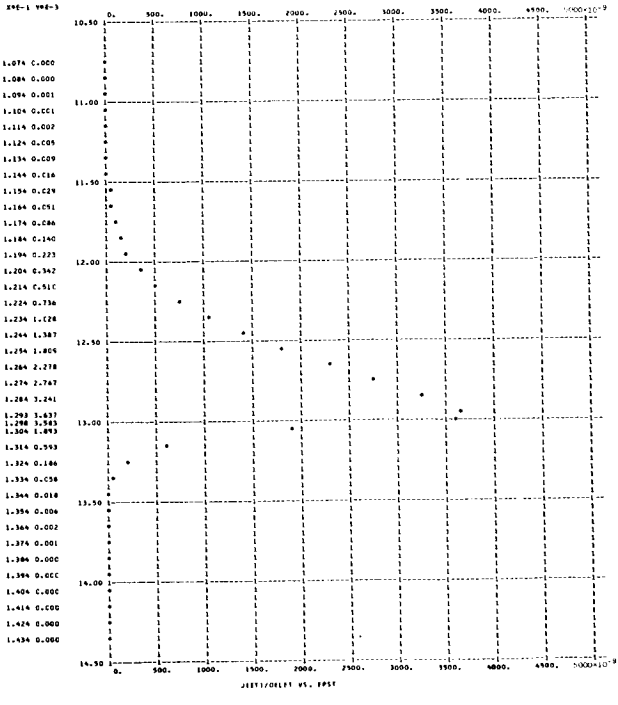
J = 0.210512E-05 KETAV= 0.768924E 01 KETFL= 0.125820E 10 TZERO = 0.594870E 05 TD = 0.690918E 03

Figure 3. - Continued.







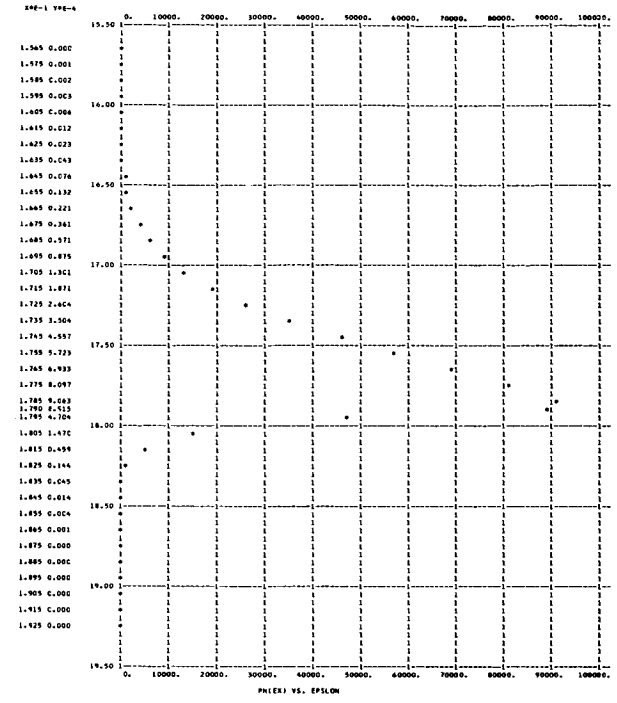


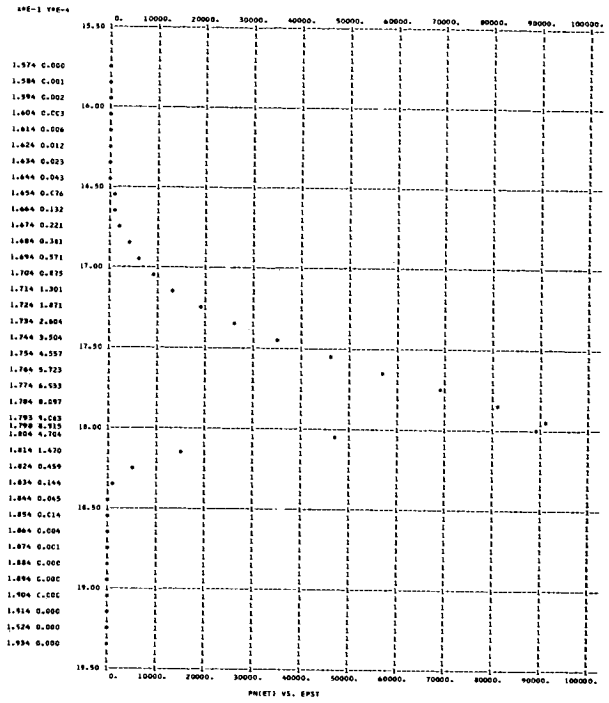
T = 1.00000000E 03 E = 0.10000002E 08 PHI = 4.00 AMU = 10.00 EVMAX = 12.8901

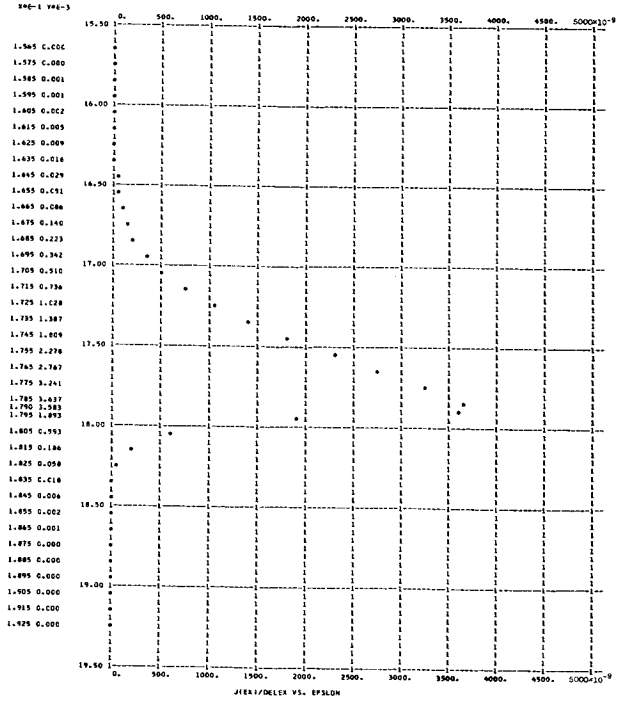
NEM = 0.14367002E 24 NEE = 0.62410002E 05 VXAV = 0.21055276E 09 KEXAV = 0.12605575E 02 KEXFL = 0.26549168E 10

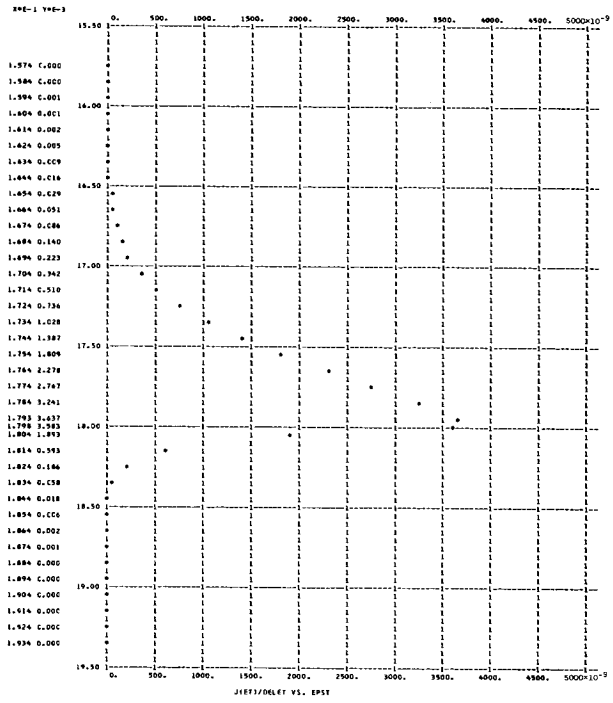
J = 0.210512E-05 KETAV= 0.126917E 02 KETFL= 0.267306E 10 TZERO = 0.981885E 05 TD = 0.681042E 03

Figure 3. - Continued.







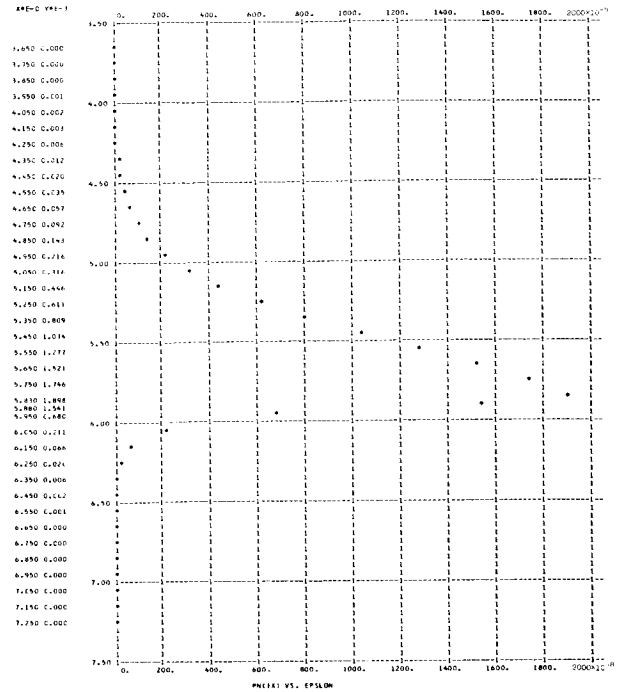


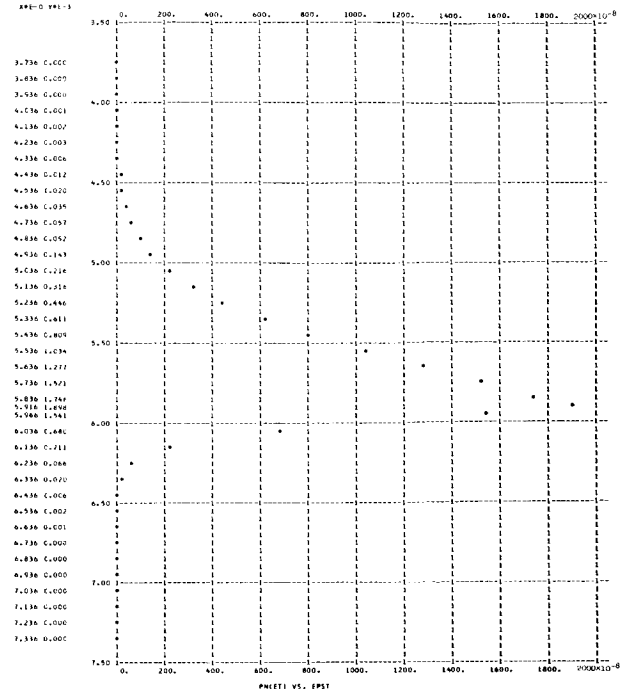
T = 1.00000000E 03 E = 0.10000002E 08 PHI = 4.00 AMU = 15.00 EVMAX = 17.8901

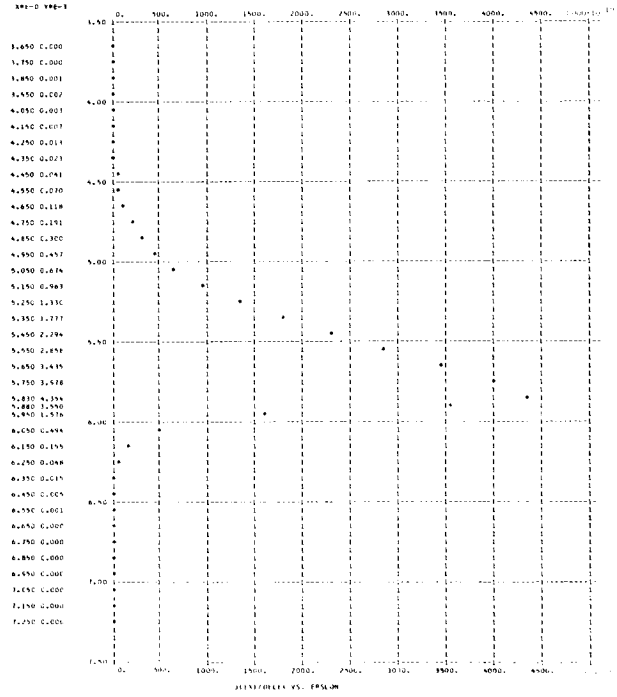
NEM = 0.26396224E 24 NEE = 0.52805583E 05 VXAV = 0.24884766E 09 KEXAV = 0.17606638E 02 KEXFL = 0.43820255E 10

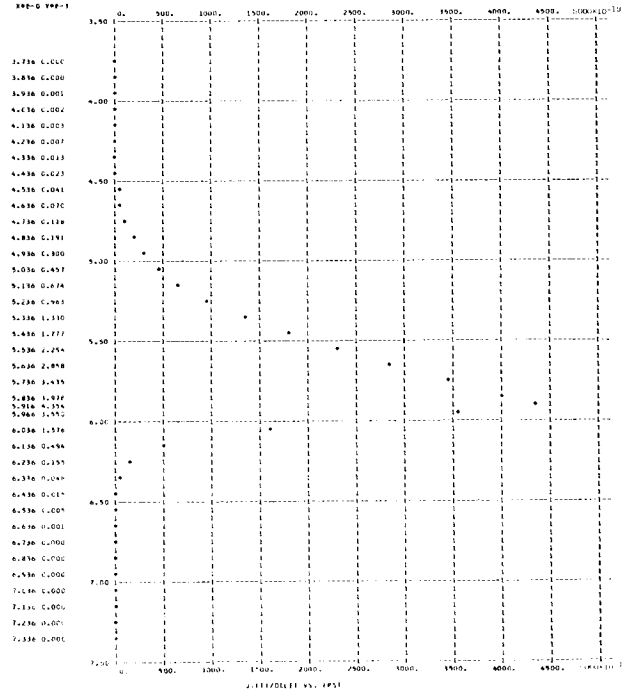
J = 0.210512E-05 KETAV= 0.176928E 02 KETFL= 0.440347E 10 TZERO = 0.136879E 06 TD = 0.676870E 03

Figure 3. - Continued.







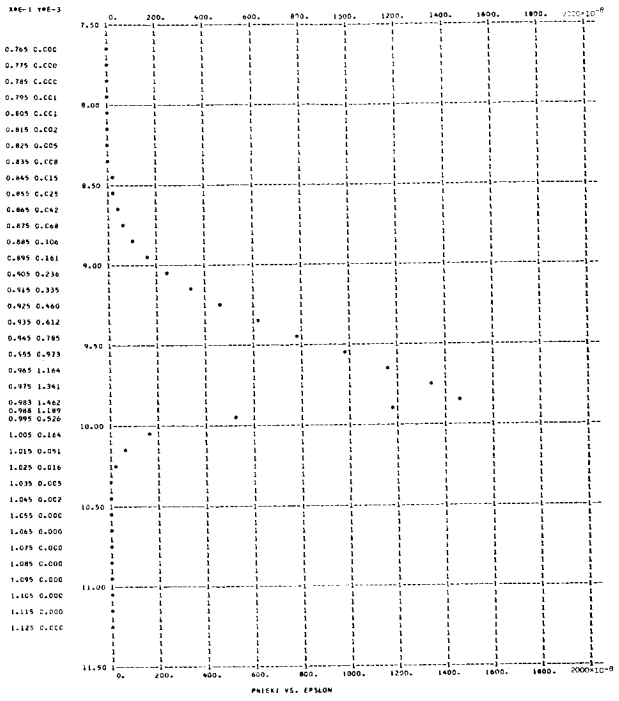


T = 1.00000000E 03 E = 0.10000002E 08 PHI = 6.00 AMU = 1.00 EVMAX = 5.8601

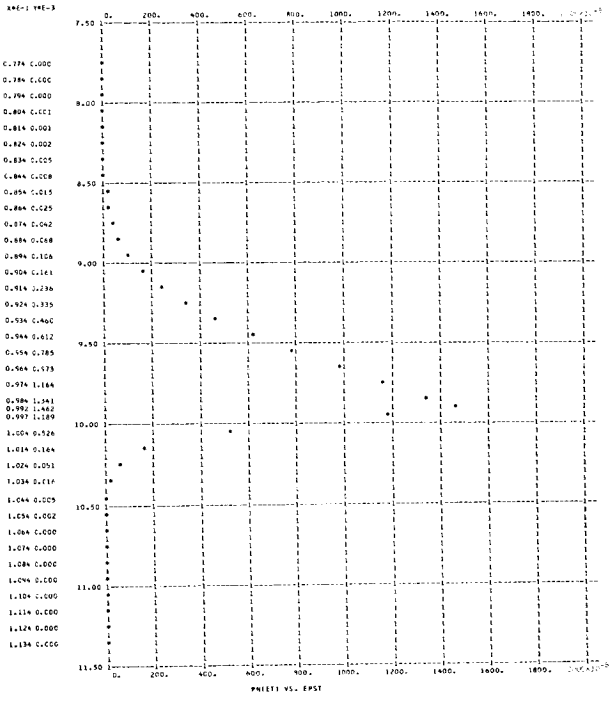
NEM = 0.45427783E 22 NEE = 0.11091062E-04 VXAV = 0.13992882E 09 KEXAV = 0.55709626E 01 KEXFL = 0.78073727E 09

J = 0.248624E-15 KETAV= 0.565713E 01 KETFL= 0.792795E 09 TZERO = 0.437659E 05 TD = 0.700304E 03

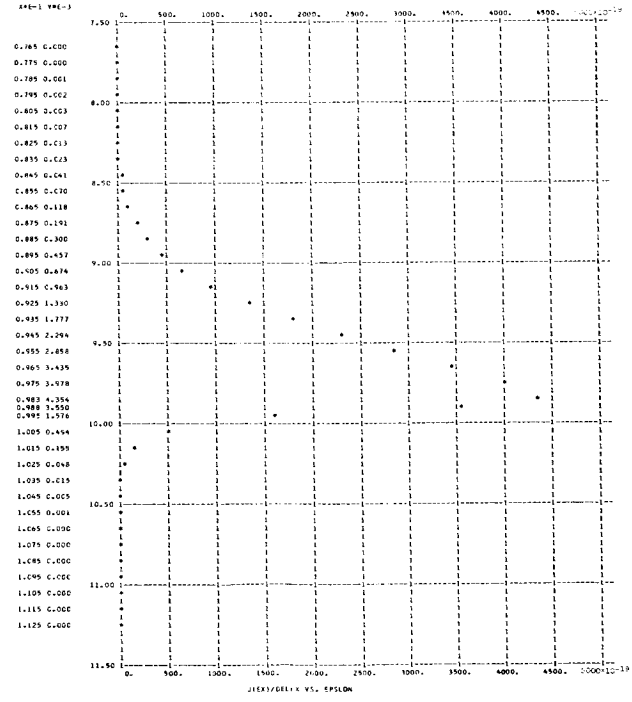
Figure 3. - Continued.



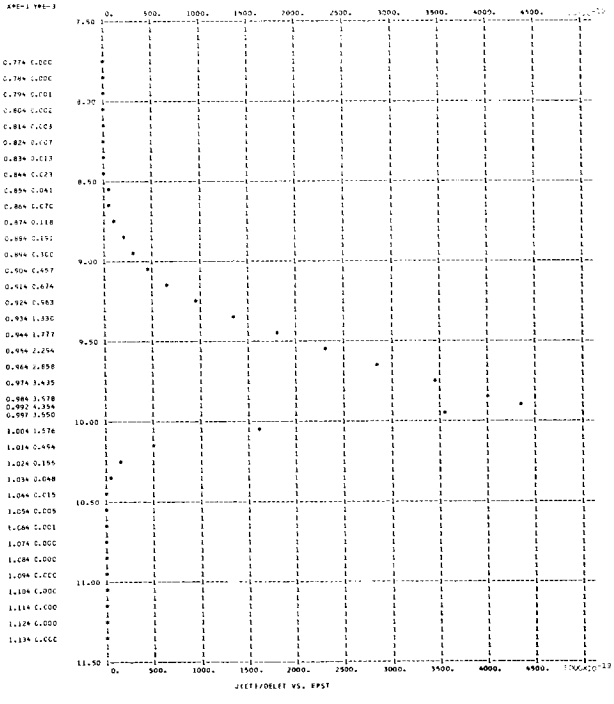
PNIEKI VS. EPSLON



PNIETI VS. EPST



JIEKI/DELTA VS. EPSLON



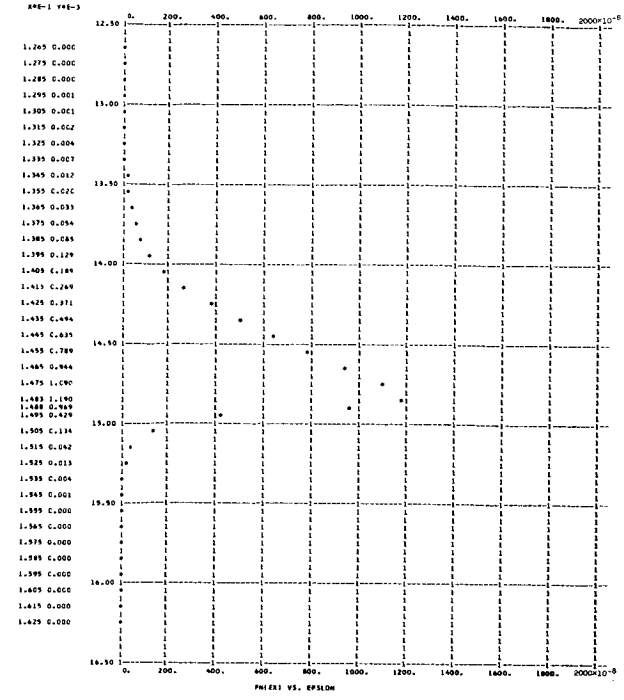
JIETI/DELET VS. EPST

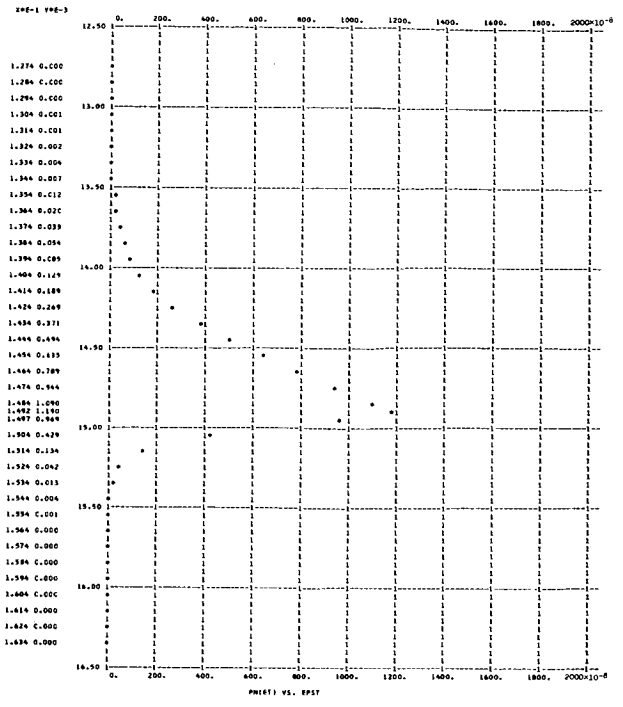
T = 1.00000000E 03 E = 0.10000002E 08 PHI = 6.00 AMU = 5.00 EVMAX = 9.8601

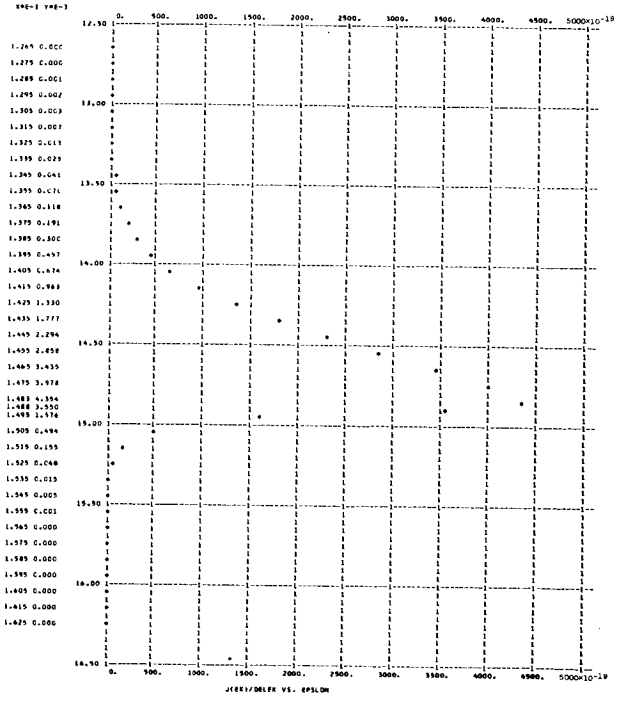
NEM = 0.50780506E 23 NEE = 0.84578304E-05 VXAV = 0.18349195E 09 KEXAV = 0.95746432E 01 KEXFL = 0.17577671E 10

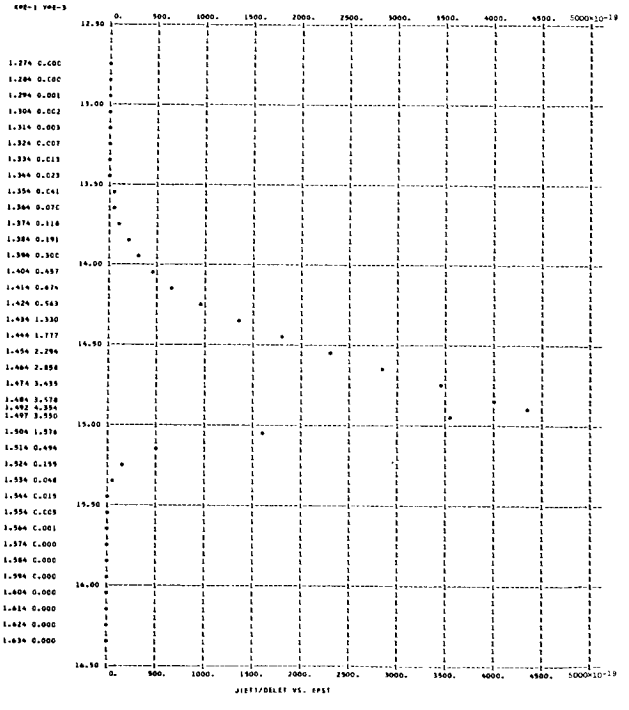
J = 0.248621E-15 KETAV= 0.966082E 01 KETFL= 0.177358E 10 TZERO = 0.747400E 05 TD = 0.685724E 03

Figure 3. - Continued.







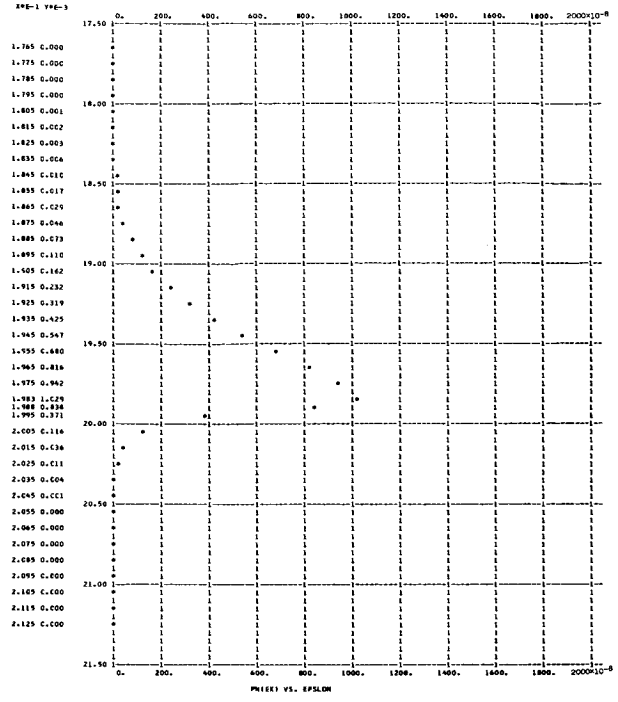


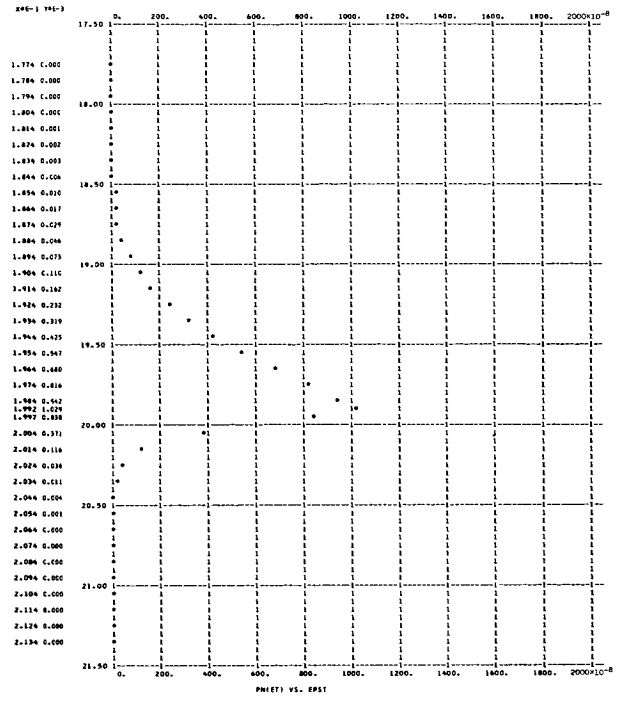
T = 1.00000000E 03 E = 0.10000002E 08 PHI = 6.00 AMU = 10.00 EVMAX = 14.8601

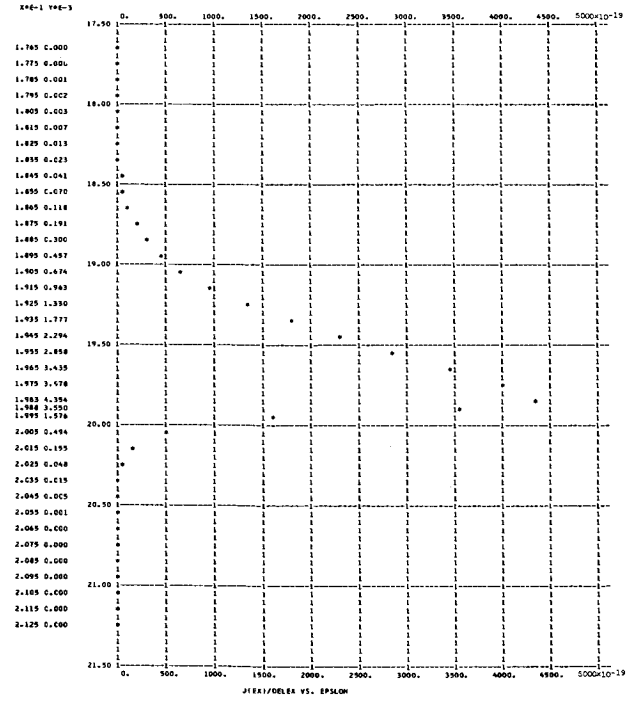
NEM = 0.14367002E 24 NEE = 0.68543161E-05 VXAV = 0.22641861E 09 KEXAV = 0.14576347E 02 KEXFL = 0.33010771E 10

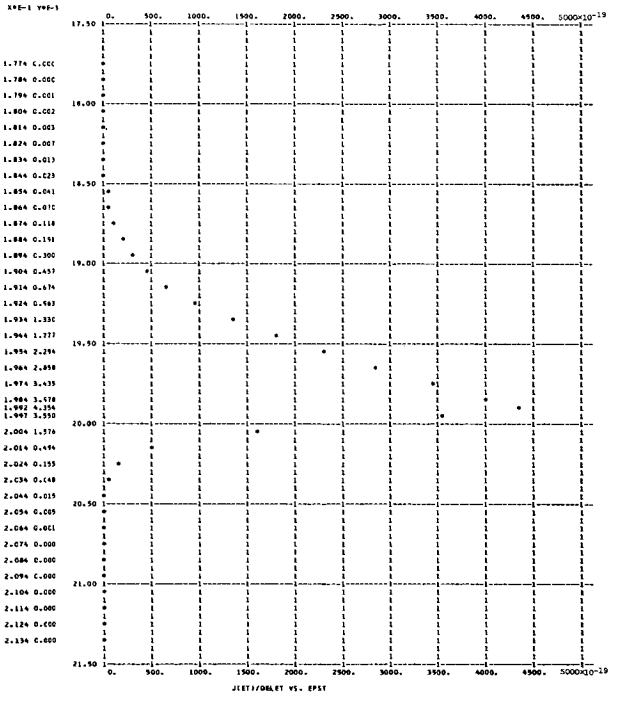
J = 0.248622E-15 KETAV= 0.146625E 02 KETFL= 0.332059E 10 TZERO = 0.113435E 06 TD = 0.679039E 03

Figure 3. - Continued.







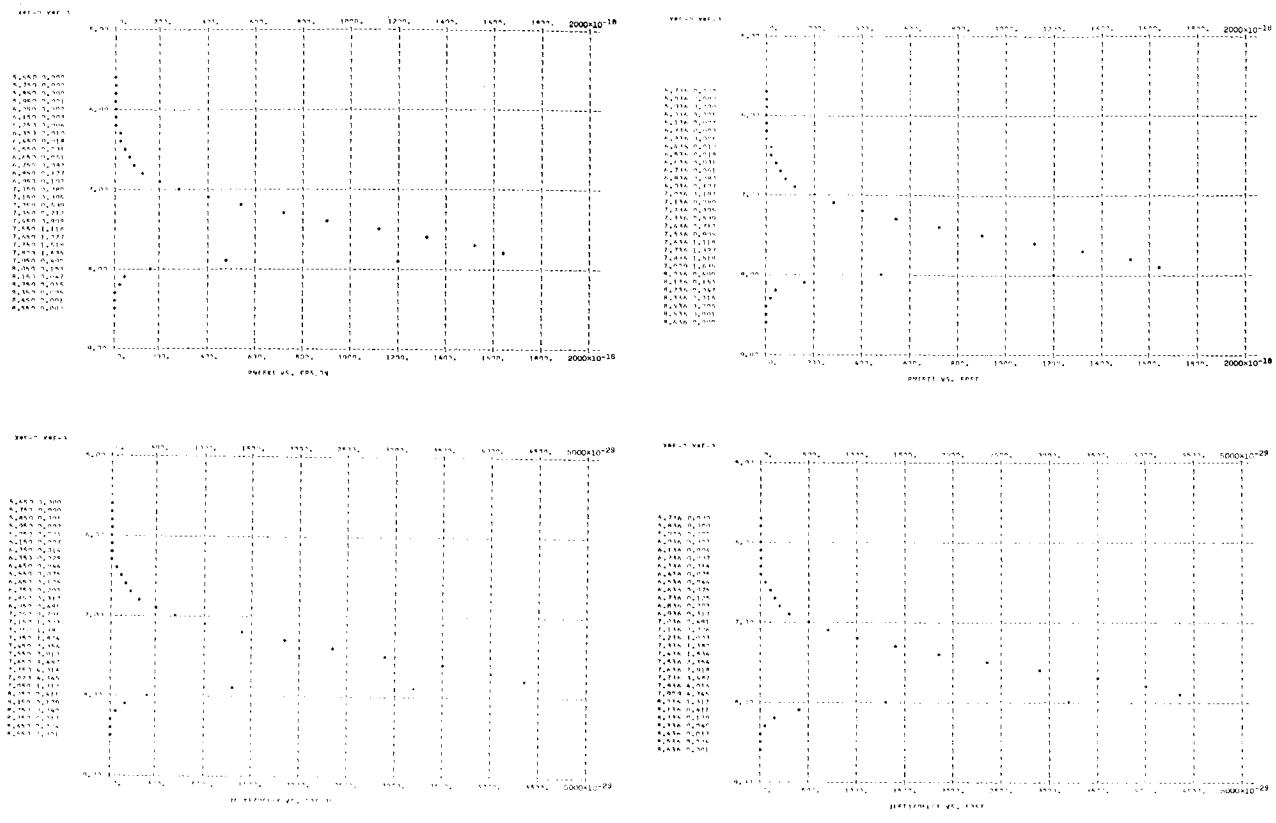


T = 1.00000000E 03 E = 0.10000002E 08 PHI = 6.00 AMU = 15.00 EVMAX = 19.8601

NEM = 0.26396224E 24 NEE = 0.59142818E-05 VXAV = 0.26240580E 09 KEXAV = 0.19577170E 02 KEXFL = 0.51377824E 10

J = 0.248621E-15 KETAV= 0.196633E 02 KETFL= 0.516039E 10 TZERO = 0.152124E 06 TD = 0.675824E 03

Figure 3. - Continued.

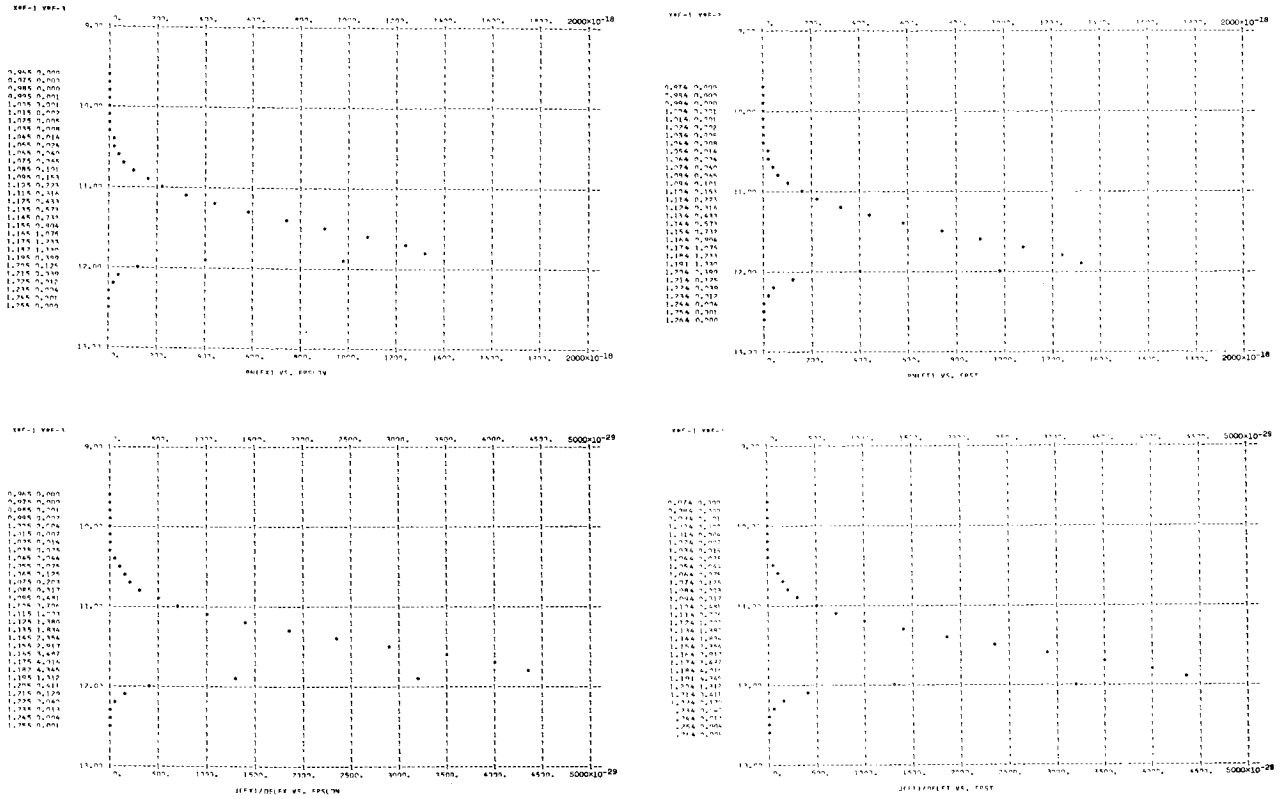


T = 1.000000000E 03 E = 0.133333333E 38 DEL = 0.00 ANU = 1.00 EVMAX = 7.8451

NEM = 0.454277836 22 NEE = 0.343304935E-15 VMAV = 0.163017136 00 KEMAV = 0.250833445 01 ZEXEL = 0.123314056 10

I = 0.246347E-25 KETAV= 0.764448E 01 KETEL= 0.12472 E 10 EZERO = 0.501407E 05 E1 = 0.601038E 33

Figure 3. - Continued.

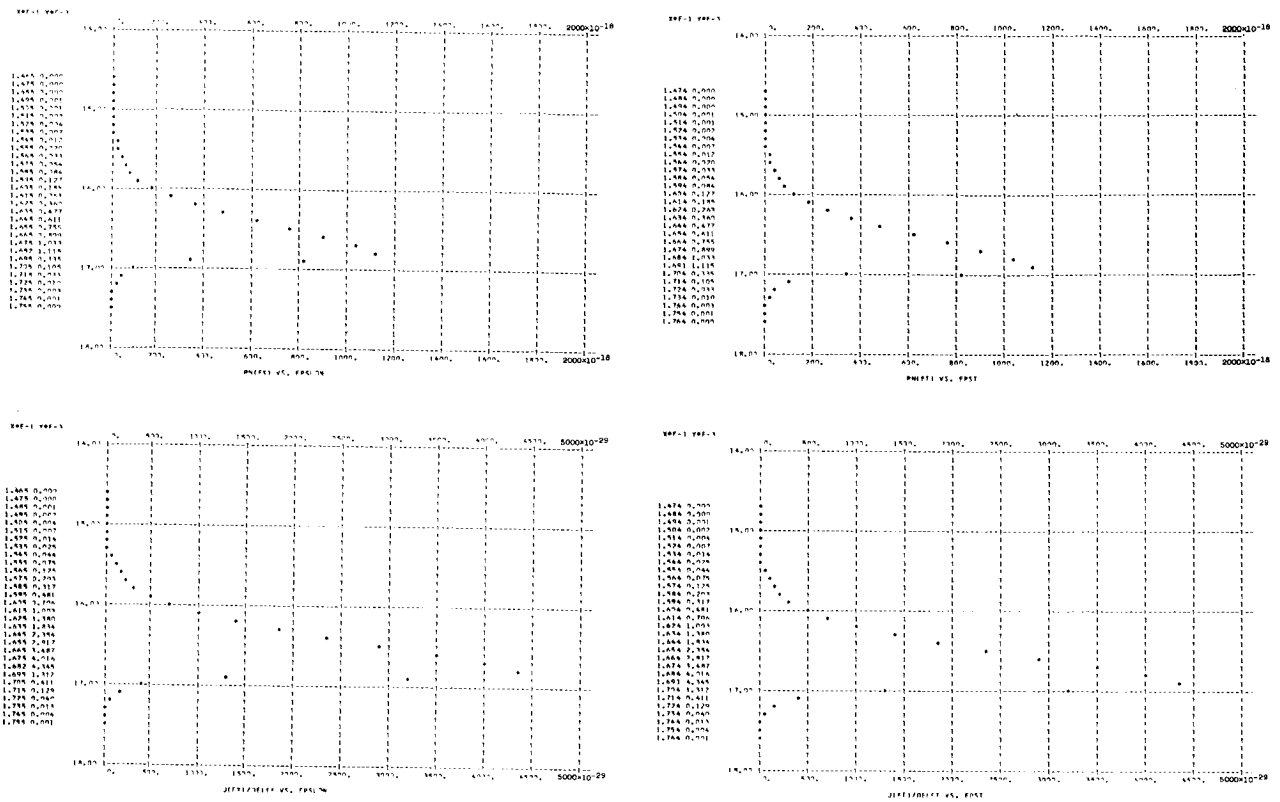


T = 1.000000000E 03 E = 0.100000000E 00 P4I = 8.00 AMJ = 5.00 EVMAX = 11.8451

NEM = 0.507805096E 23 NEE = 0.76264152E-15 VXAV = 0.20163319E 09 KEXAV = 0.11563513E 02 KEXEL = 0.23317949E 10

J = 0.246346E-25 KETAV= 0.115457E 02 KETEL= 0.234917E 10 IZERO = 0.9010346E 05 TD = 0.6823525E 03

Figure 3. - Continued.

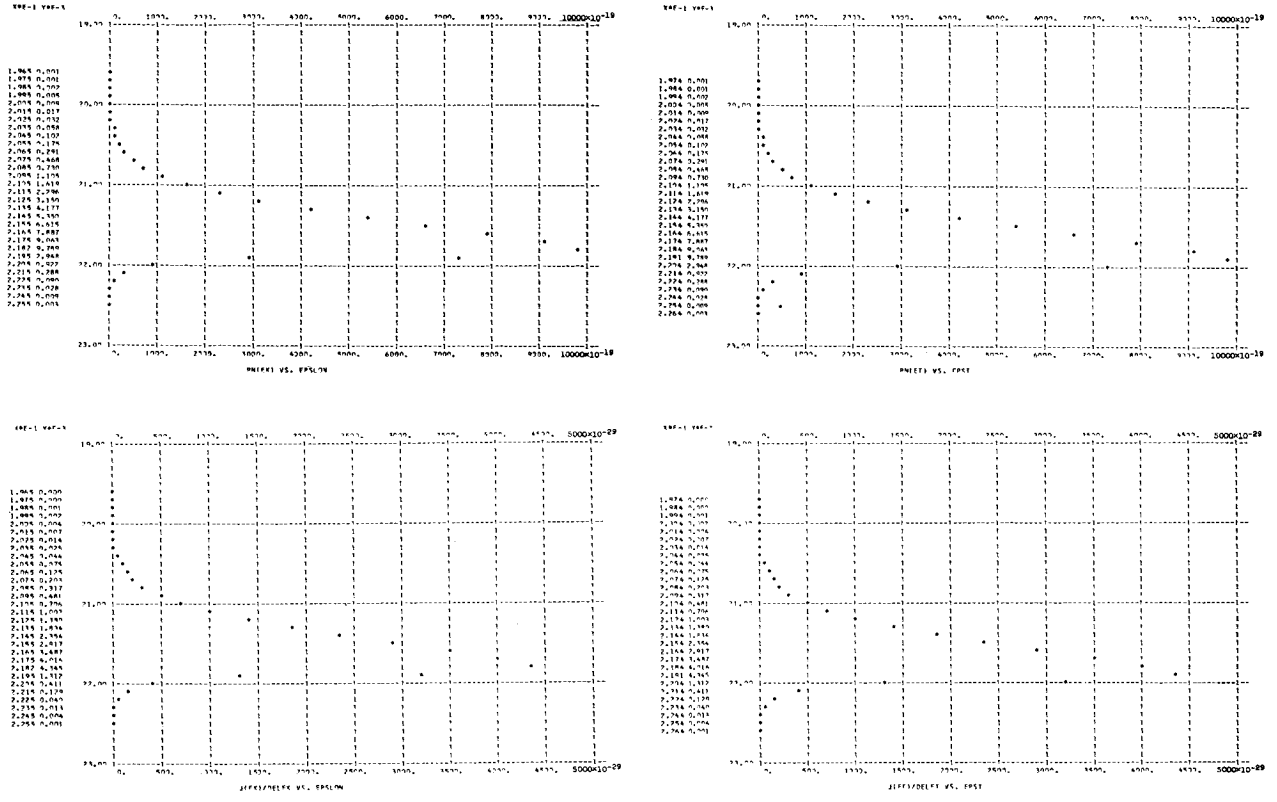


T = 1.000000000E 03 E = 0.102002302E 28 PHI = 8.00 AMI = 10.00 EVMAX = 16.8451

NEM = 0.143670002E 24 NEE = 0.63714128E-15 VXAV = 0.24134940E 09 KEXAV = 0.16561743E 02 KEXEL = 0.30078417E 10

J = 0.246345E-25 KETAV= 0.145479E 02 KETEL= 0.4018644E 10 TZERO = 0.1287235E 06 TJ = 0.4775521E 03

Figure 3. - Continued.

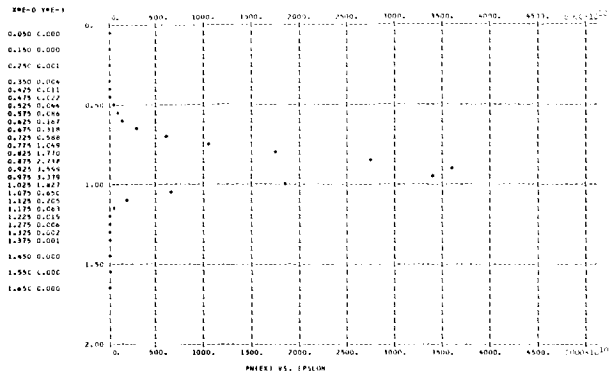


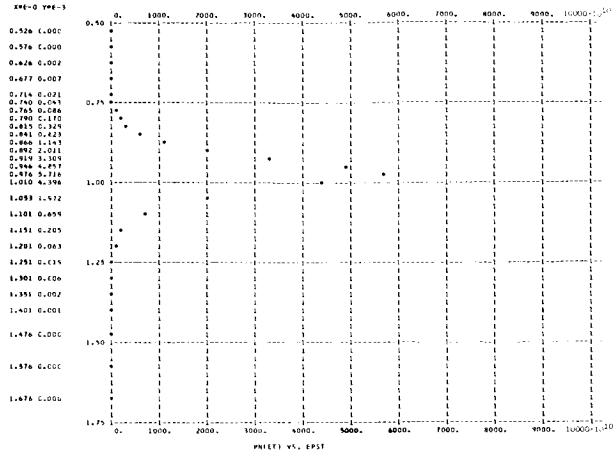
T = 1.00000000E 03 E = 0.10000002E 08 PHI = 8.70 AMU = 15.00 EVMAX = 21.8451

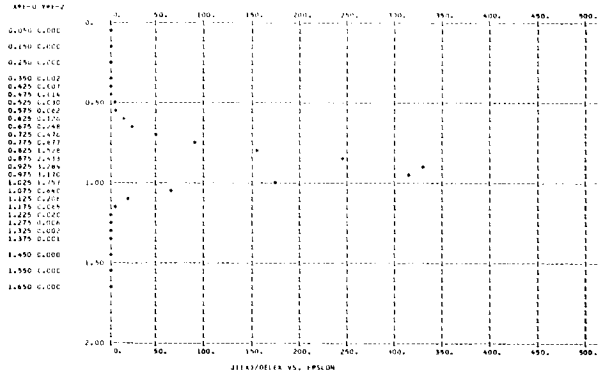
NEM = 0.26396224E 24 NEE = 0.55938555E-15 VXAV = 0.27539073E 09 KEXAV = 0.21552398E 02 KEXEL = 0.59386741E 10

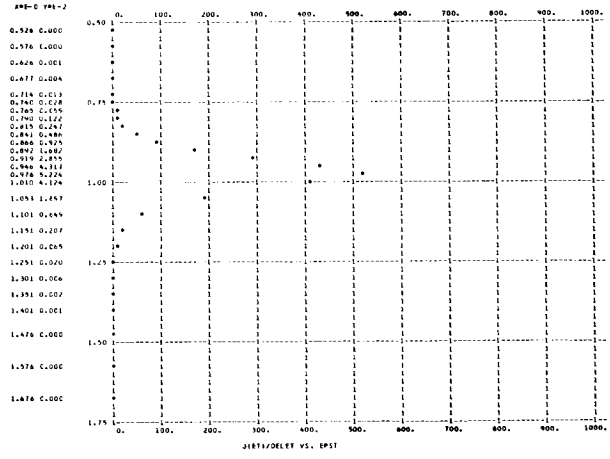
J = 0.246346E-25 KETAV= 0.215498E 02 KETEL= 0.596241E 10 TZERO = 0.167482E 06 TO = 0.474977E 03

Figure 3. - Continued.







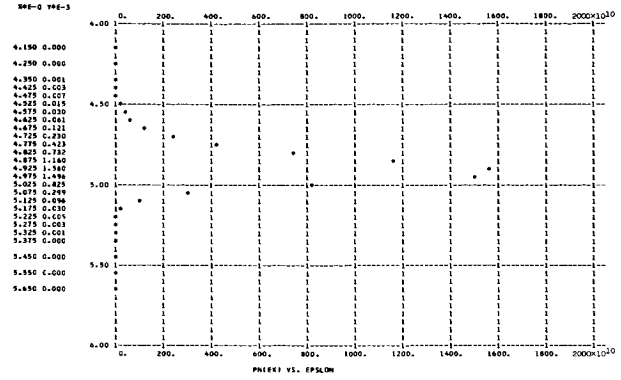


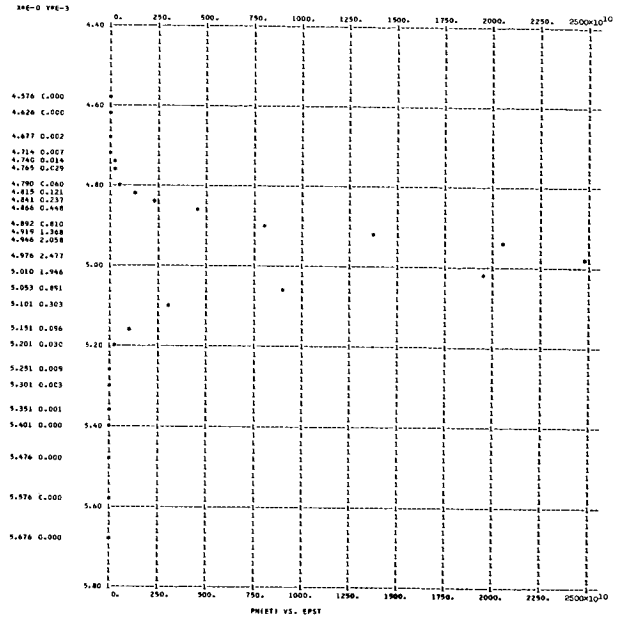
T = 0.30000000E 03 E = 0.10000002E 08 PHI = 2.00 AMU = 1.00 EVMAX = 1.9800

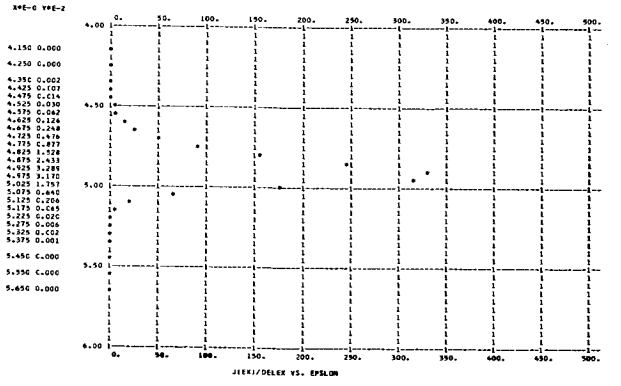
NEM = 0.45068920E 22 NEE = 0.82768334E 13 VXAV = 0.56426794E 08 KEXAV = 0.90852381E 00 KEXFL = 0.51627089E 08

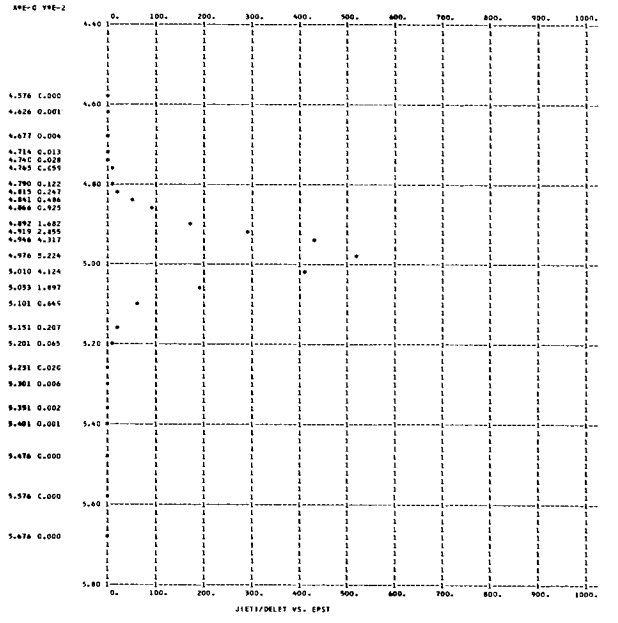
J = 0.748190E 02 KETAV= 0.973215E 00 KETFL= 0.551435E 08 TZERO = 0.752918E 04 TD = 0.526143E 03

Figure 3. - Continued.







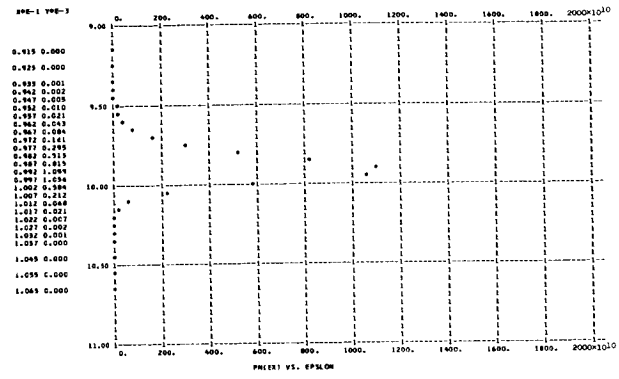


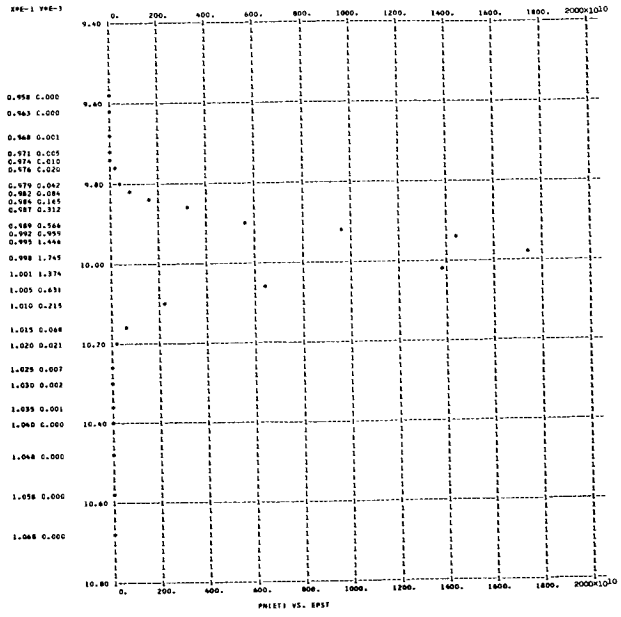
T = 0.30000000E 03 E = 0.10000002E 08 PHI = 2.00 AMU = 5.00 EVMAX = 5.9800

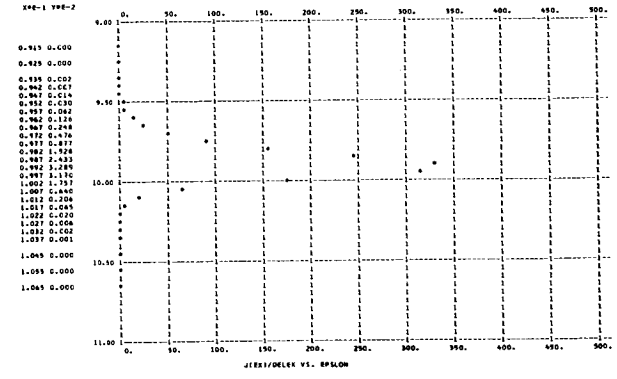
NEM = 0.50764097E 23 NEE = 0.35523032E 13 VXAV = 0.13146134E 09 KEXAV = 0.49138463E 01 KEXFL = 0.64612503E 09

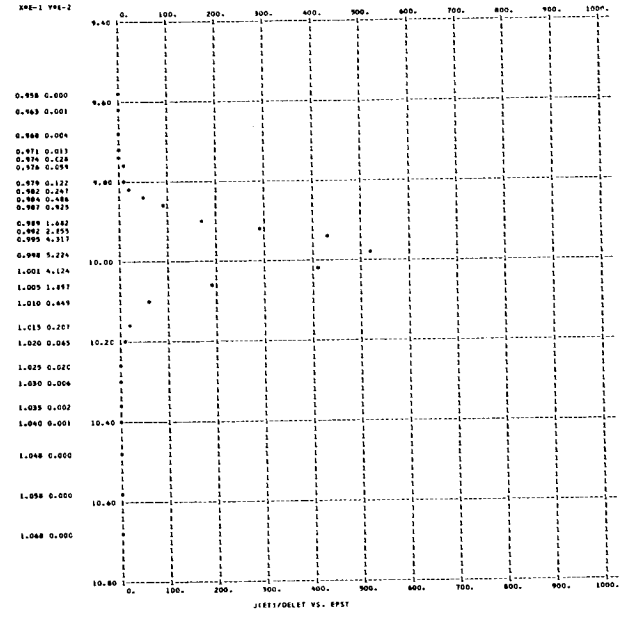
J = 0.748119E 02 KETAV= 0.497655E 01 KETFL= 0.654317E 09 TZERO = 0.385006E 05 TD = 0.489394E 03

Figure 3. - Continued.







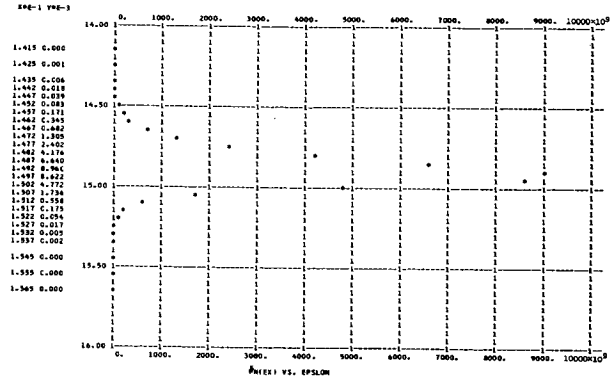


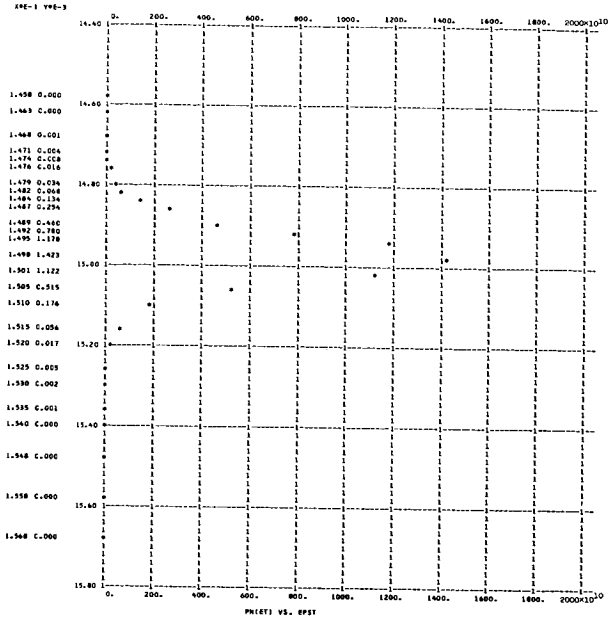
T = 0.30000000E 03 E = 0.10000002E 08 PHI = 2.00 AMU = 10.00 EVMAX = 10.9800

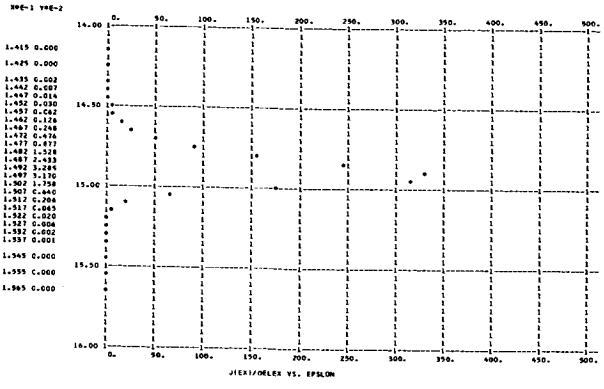
NEM = 0.14365840E 24 NEE = 0.25007199E 13 VXAV = 0.18674067E 09 KEXAV = 0.99144013E 01 KEXFL = 0.18515230E 10

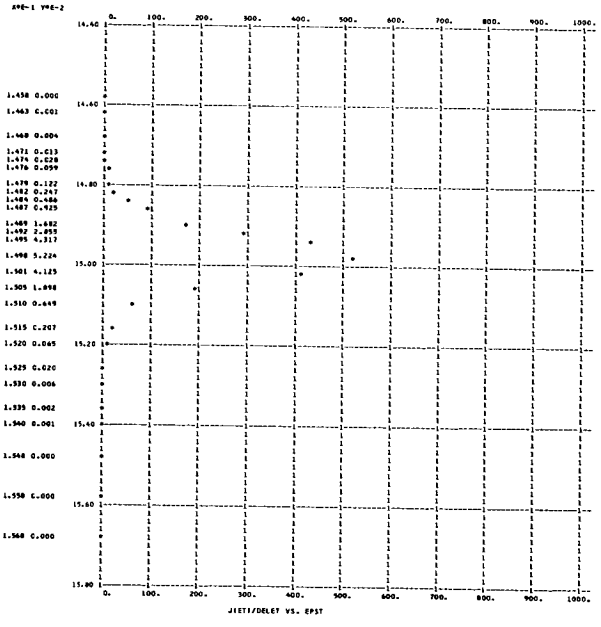
J = 0.748112E 02 KETAV= 0.997691E 01 KETFL= 0.186316E 10 TZERO = 0.771854E 05 TD = 0.485691E 03

Figure 3. - Continued.







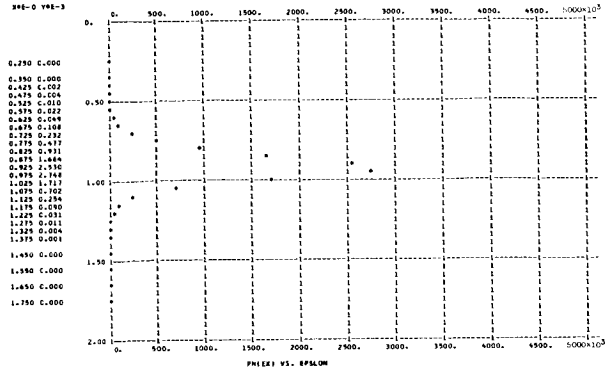


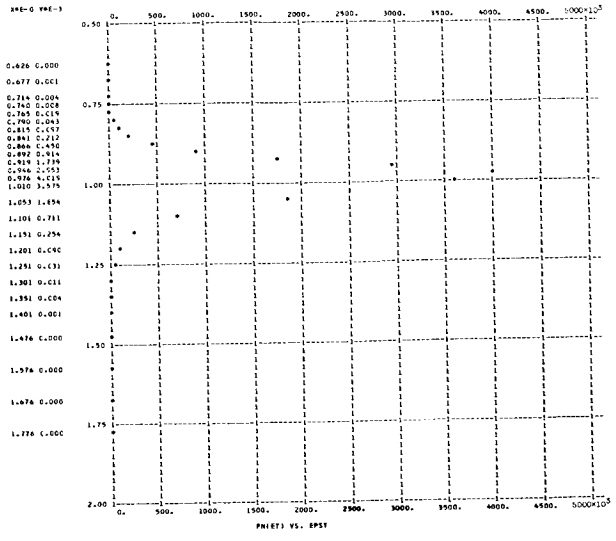
T = 0.30000060E 03 E = 0.10000002E 08 PHI = 2.00 AMU = 15.00 EVMAX = 15.9800

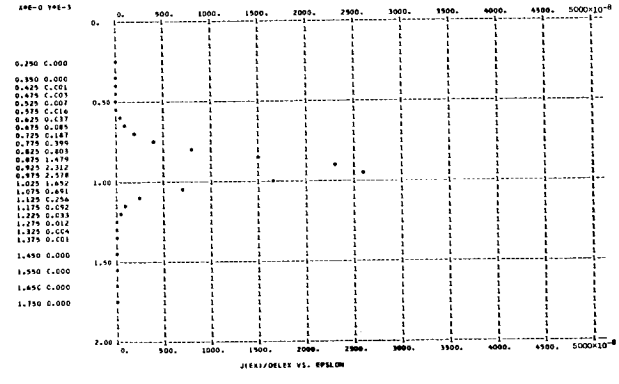
NEM = 0.26395274E 24 NEE = 0.20388680E 13 VXAV = 0.22904170E 09 KEXAV = 0.14914584E 02 KEXFL = 0.34161440E 10

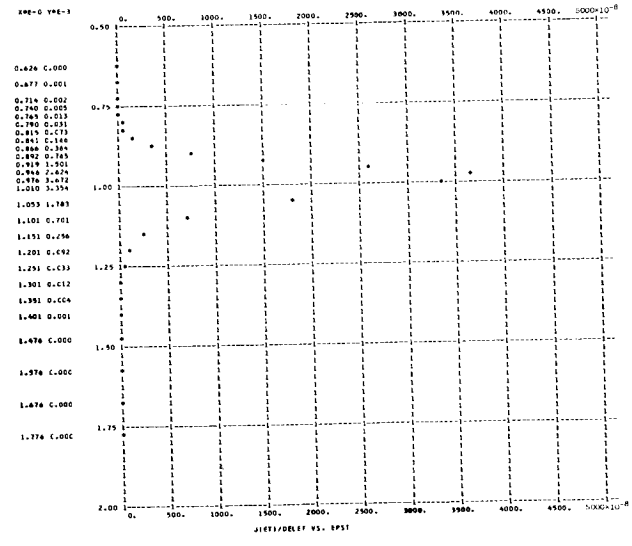
J = 0.748111E 02 KETAV= 0.149770E 02 KETFL= 0.343042E 10 TZERO = 0.115868E 06 TD = 0.484478E 03

Figure 3. - Continued.







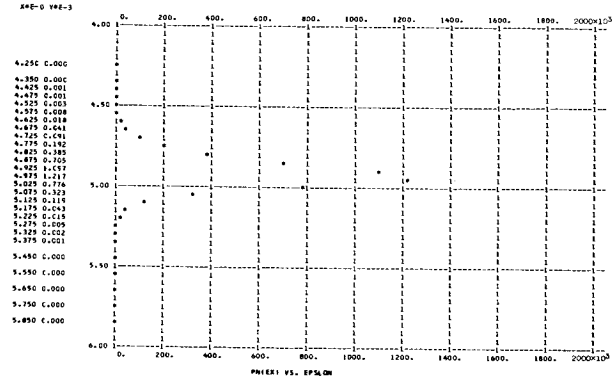


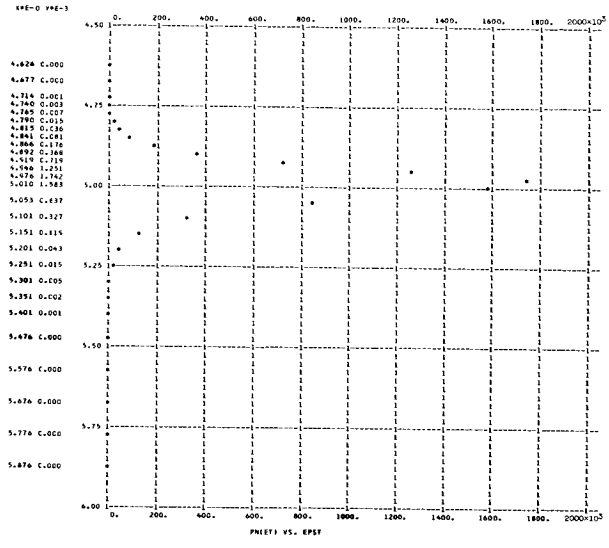
T = 0.30000000E 03 E = 0.10000002E 08 PHI = 3.00 AMU = 1.00 EVMAX = 2.9201

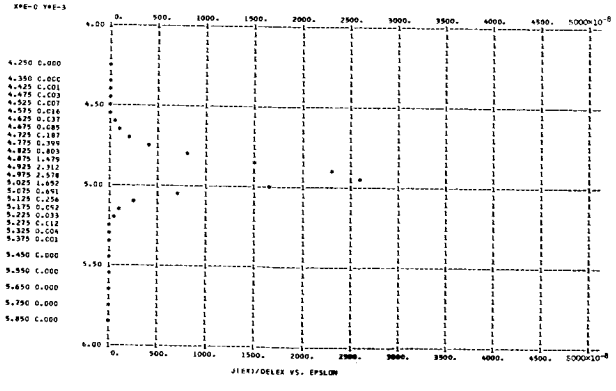
NEM = 0.45068920E 22 NEE = 0.57951102E 06 VXAV = 0.57363304E 08 KEXAV = 0.93812085E 00 KEXFL = 0.54108191E 08

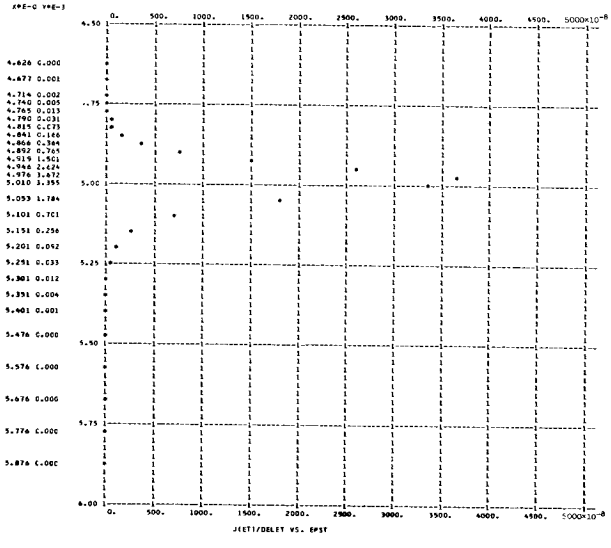
J = 0.532548E-05 KETAV= 0.992746E 00 KETFL= 0.571483E 08 TZERO = 0.768028E 04 TD = 0.442855E 03

Figure 3. - Continued.







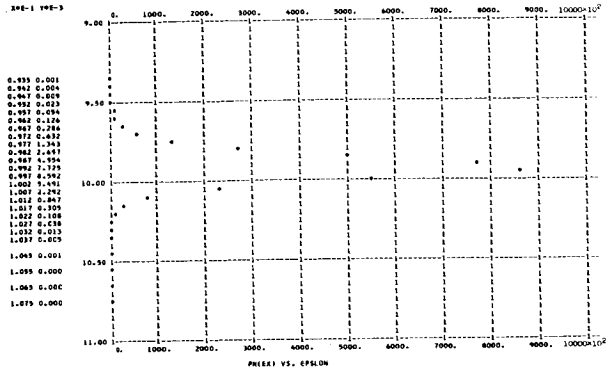


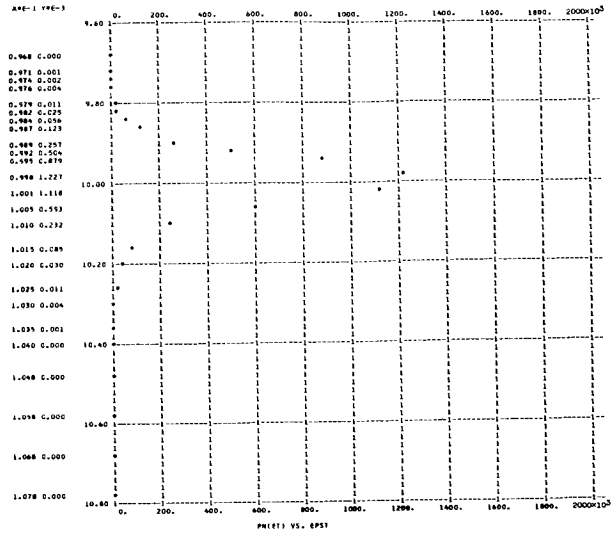
T = 0.30000000E 03 E = 0.10000002E 08 PHI = 3.00 AMU = 5.00 EVMAX = 6.9201

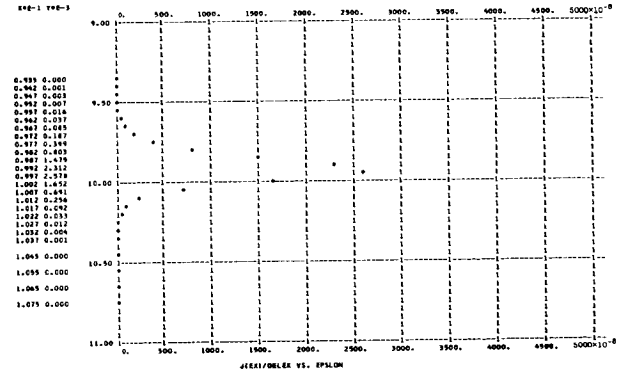
NEM = 0.50764097E 23 NEE = 0.25211966E 06 VXAV = 0.13184294E 09 KEXAV = 0.49423276E 01 KEXFL = 0.65173376E 09

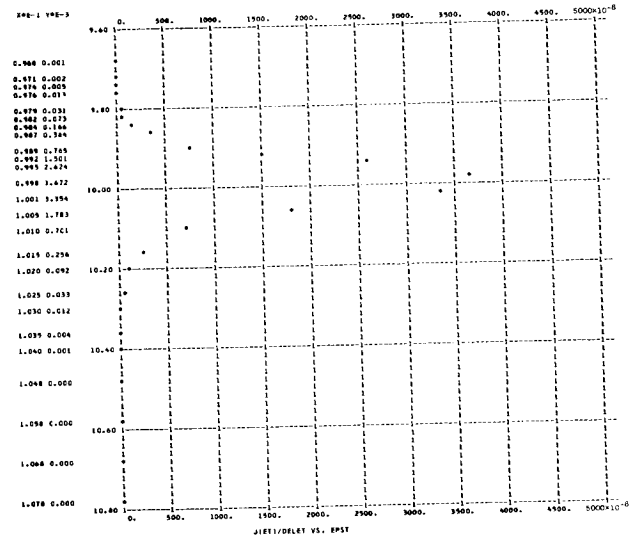
J = 0.532508E-05 KETAV= 0.499561E 01 KETFL= 0.658721E 09 TZERO = 0.386480E 05 TD = 0.415790E 03

Figure 3. - Continued.







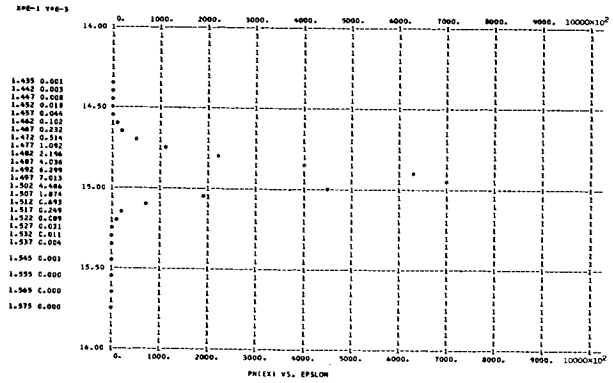


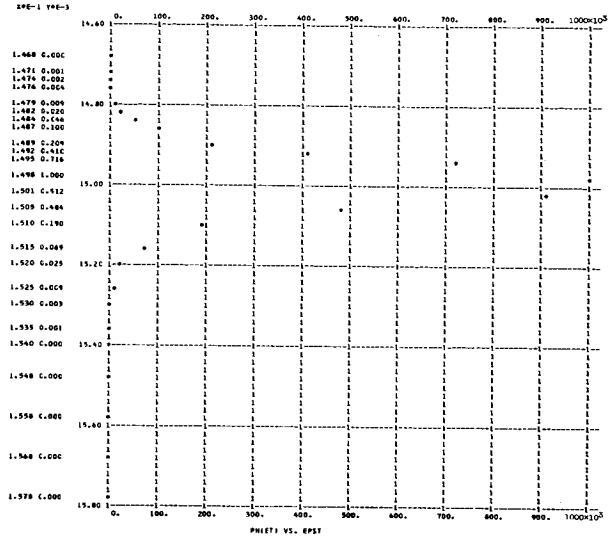
T = 0.30000000E 03 E = 0.10000002E 08 PHI = 3.00 AMU = 10.00 EVMAX = 11.9201

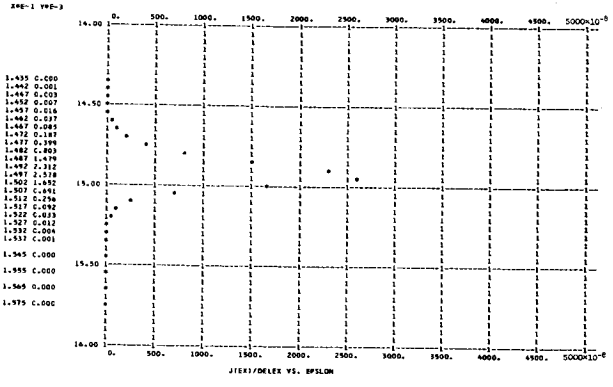
NEM = 0.14365840E 24 NEE = 0.17774392E 06 VXAV = 0.18700826E 09 KEXAV = 0.99427947E 01 KEXFL = 0.18594711E 10

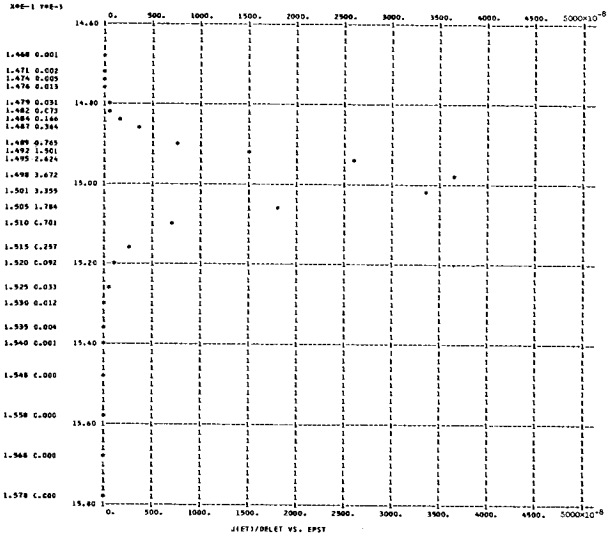
J = 0.532498E-05 KETAV= 0.999593E 01 KETFL= 0.186938E 10 TZERO = 0.773325E 05 TD = 0.412867E 03

Figure 3. - Continued.







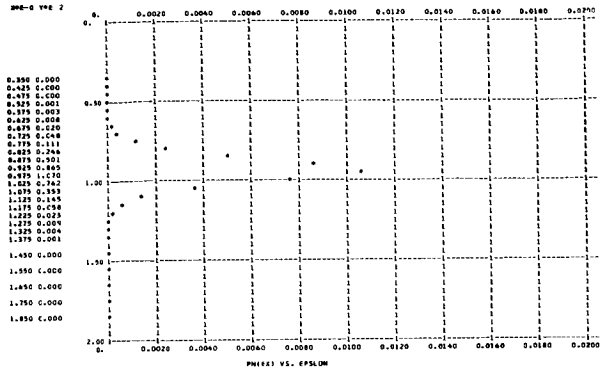


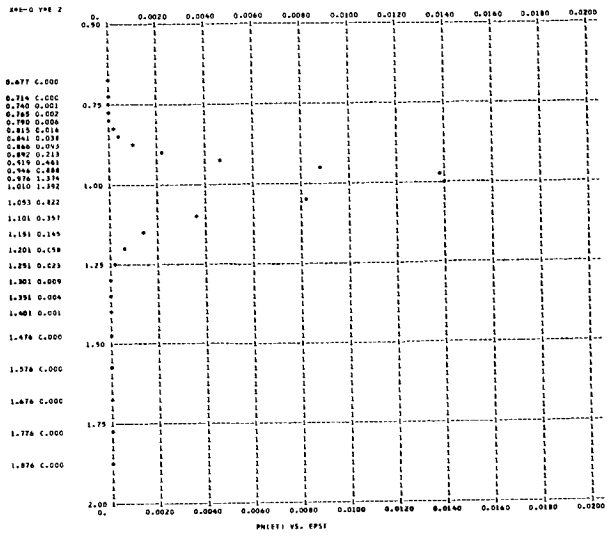
T = 0.30000000E 03 E = 0.10000002E 08 PHI = 3.00 AMU = 15.00 EVMAX = 16.9201

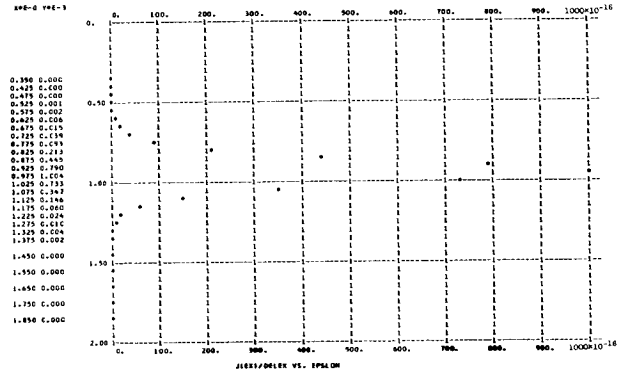
NEM = 0.26395274E 24 NEE = 0.14498836E 06 VXAV = 0.22925961E 09 KEXAV = 0.14942950E 02 KEXFL = 0.34258851E 10

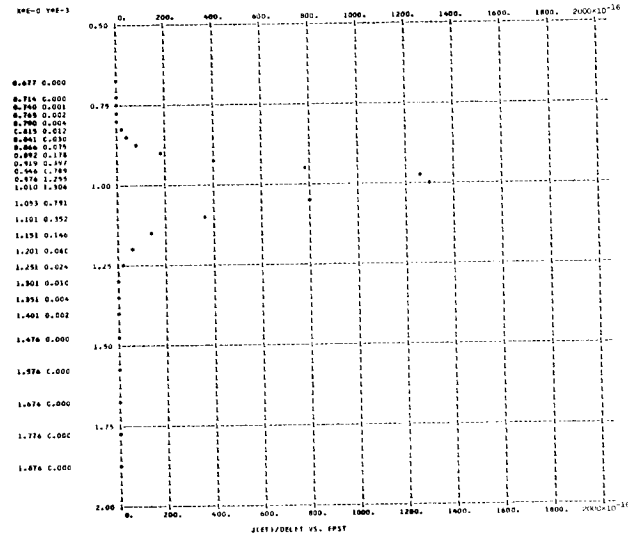
J = 0.532504E-05 KETAV= 0.149960E 02 KETFL= 0.343803E 10 TZERO = 0.116015E 06 TD = 0.411901E 03

Figure 3. - Continued.







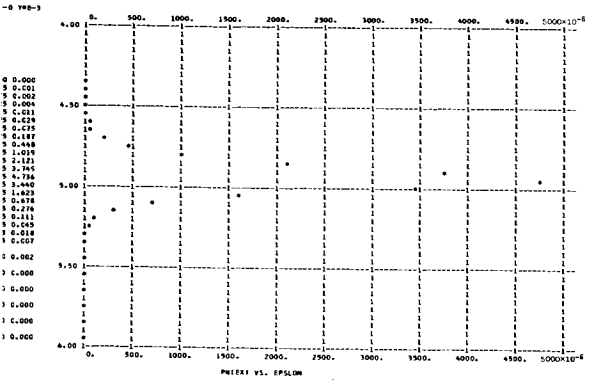


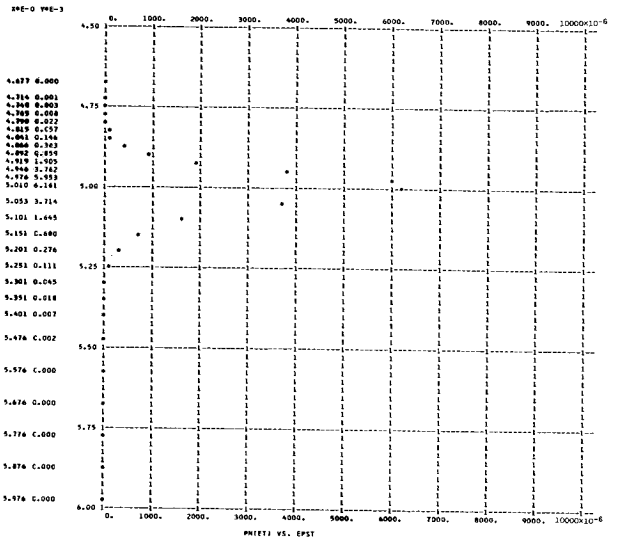
T = 0.30000000E 03 E = 0.10000002E 08 PHI = 4.00 AMU = 1.00 EVMAX = 3.8901

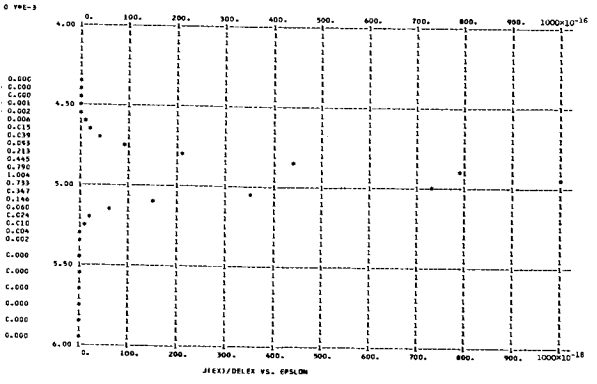
NEM = 0.45068920E 22 NEE = 0.21143140E-02 VXAV = 0.58078267E 08 KEXAV = 0.96129964E 00 KEXFL = 0.56098753E 08

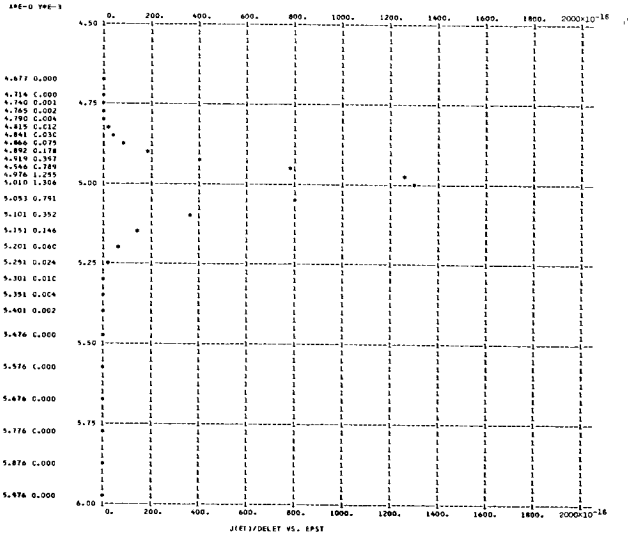
J = 0.196719E-13 KETAV= 0.100930E 01 KETFL= 0.588156E 08 TZERO = 0.780835E 04 TD = 0.389391E 03

Figure 3. - Continued.







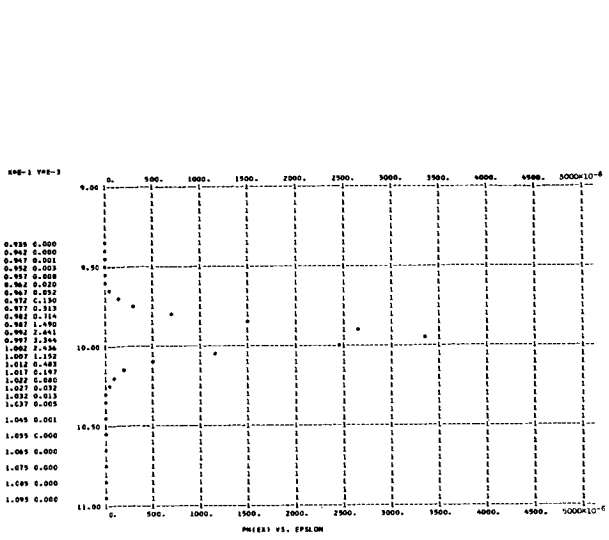


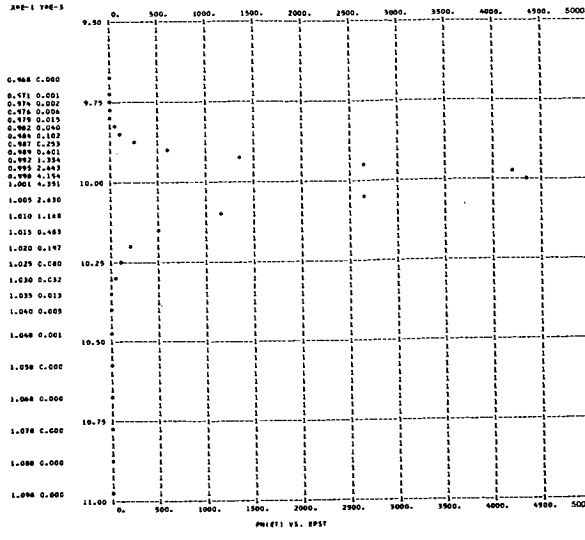
T = 0.30000000E 03 E = 0.10000002E 08 PHI = 4.00 AMU = 5.00 EVMAX = 7.8901

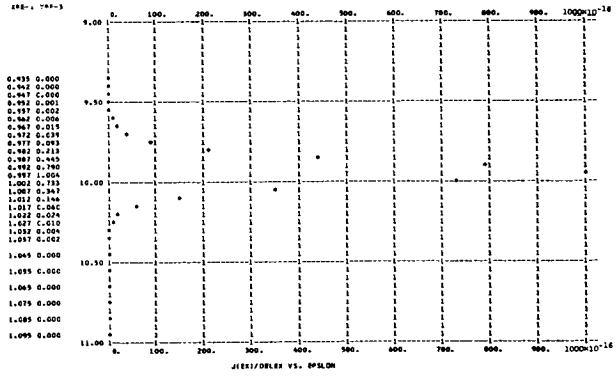
NEM = 0.50764097E 23 NEE = 0.92915305E-03 VXAV = 0.13214601E 09 KEXAV = 0.49650443E 01 KEXFL = 0.65622634E 09

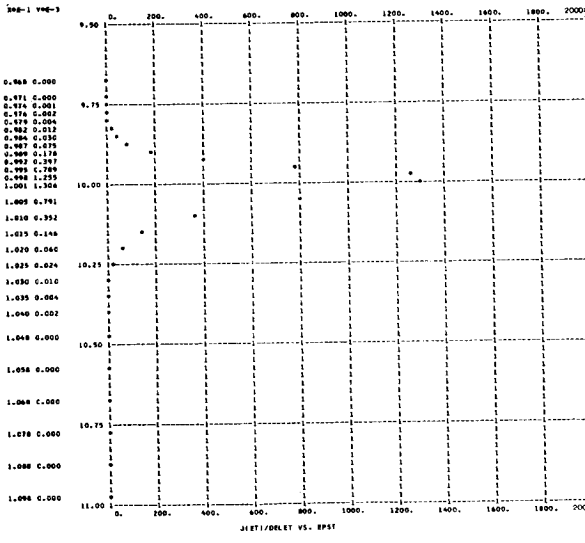
J = 0.196700E-13 KETAV= 0.501204E 01 KETFL= 0.662408E 09 TZERO = 0.387752E 05 TD = 0.366974E 03

Figure 3. - Continued.







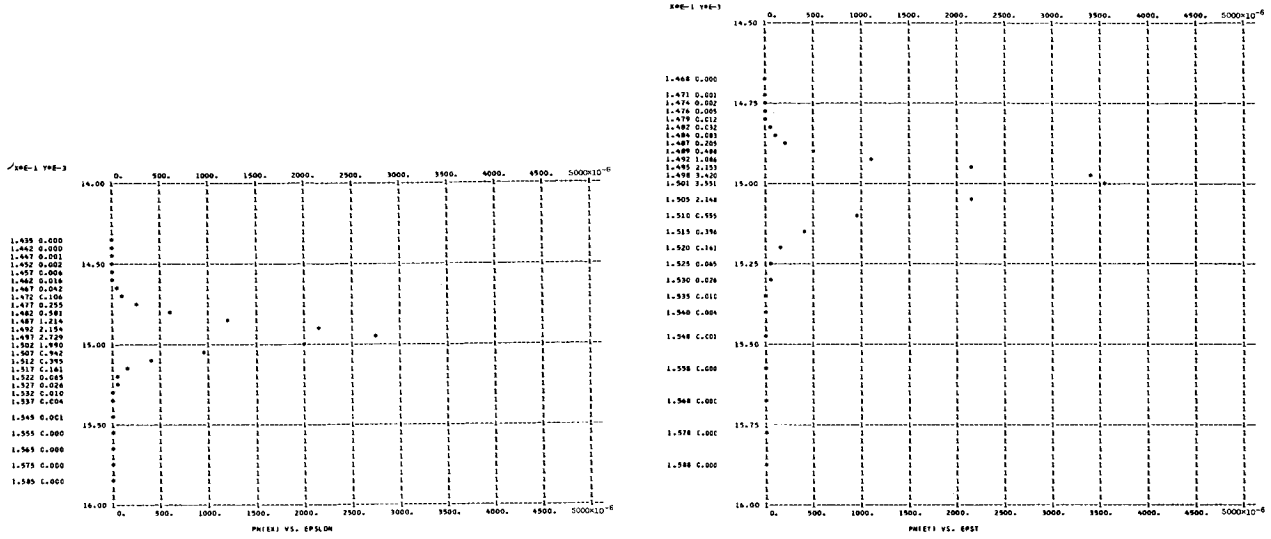


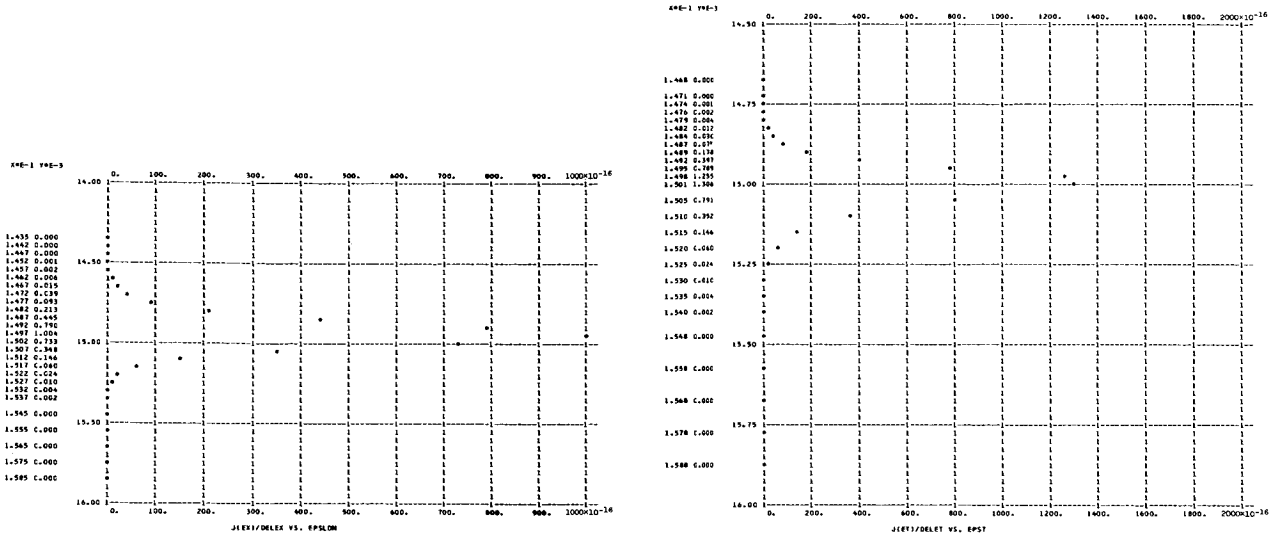
T = 0.30000000E 03 E = 0.10000002E 08 PHI = 4.00 AMU = 10.00 EVMAX = 12.8901

NEM = 0.14365840E 24 NEE = 0.65581767E-03 VXAV = 0.18722163E 09 KEXAV = 0.99654817E 01 KEXFL = 0.18658352E 10

J = 0.196699E-13 KETAV= 0.100124E 02 KETFL= 0.187459E 10 TZERO = 0.774597E 05 TD = 0.364410E 03

Figure 3. -Continued.



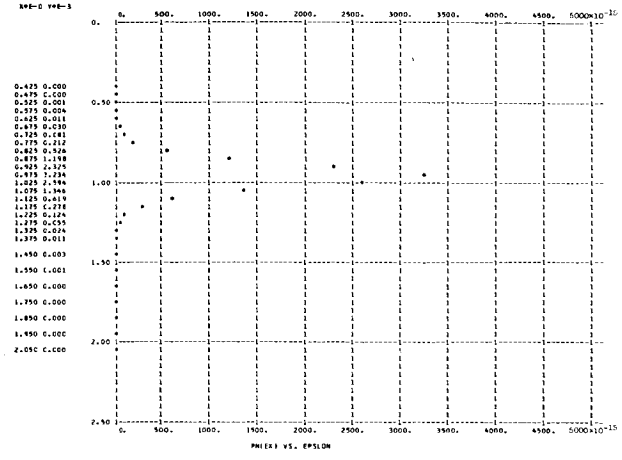


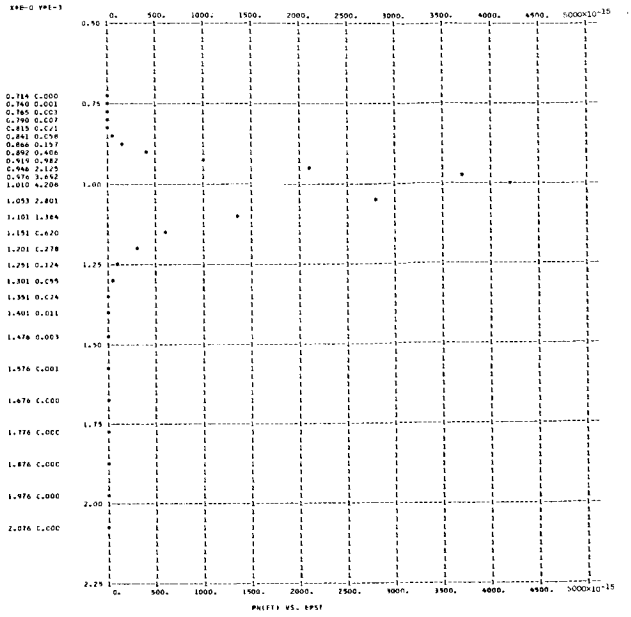
T = 0.30000000E 03 E = 0.10000002E 08 PHI = 4.00 AMU = 15.00 EVMAX = 17.8901

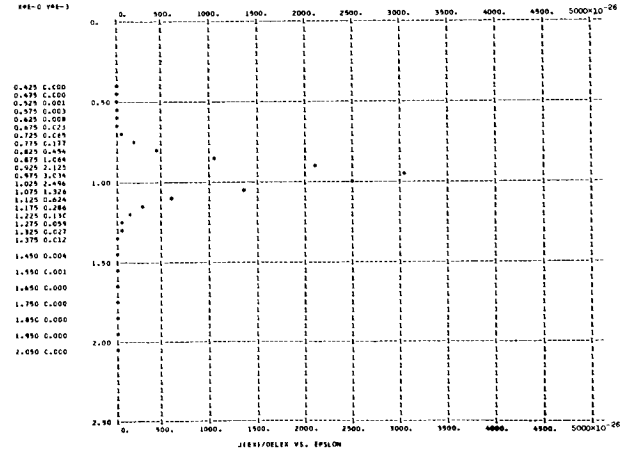
NEM = 0.26395274E 24 NEE = 0.53517345E-03 VXAV = 0.22943360E 09 KEXAV = 0.14965630E 02 KEXFL = 0.34336846E 10

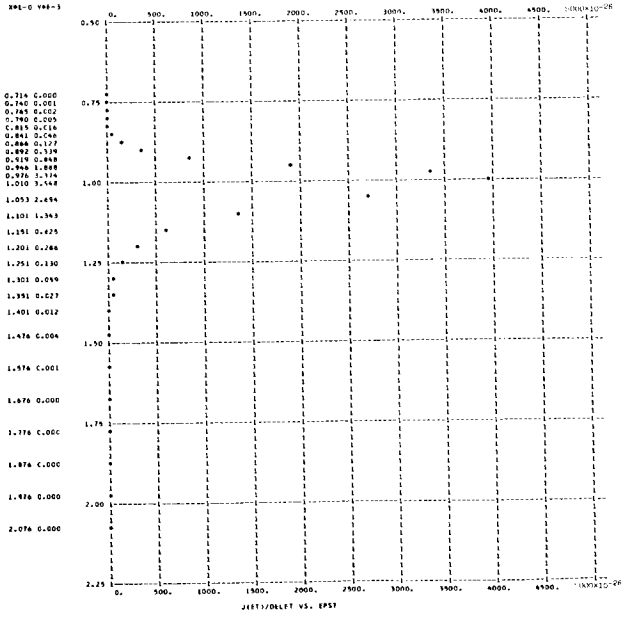
J = 0.196704E-13 KETAV= 0.150125E 02 KETFL= 0.344442E 10 TZERO = 0.116143E 06 TD = 0.363552E 03

Figure 3. - Continued.







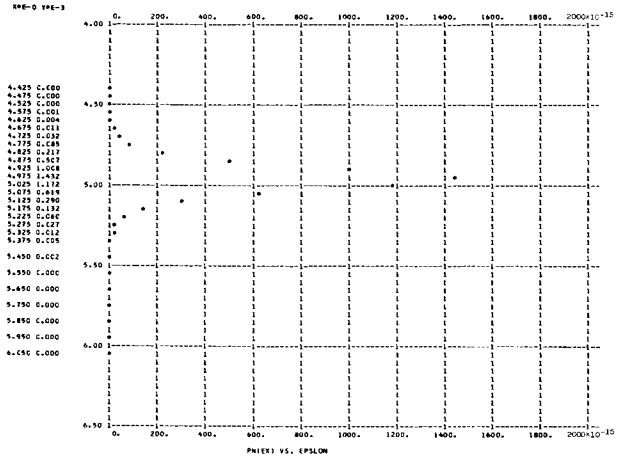


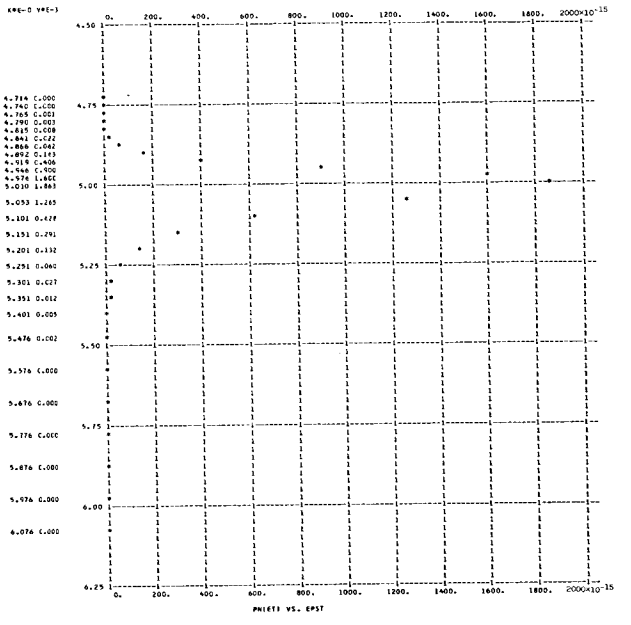
T = 0.30000000E 03 E = 0.10000002E 08 PHI = 5.00 AMU = 1.00 EVMAX = 4.8721

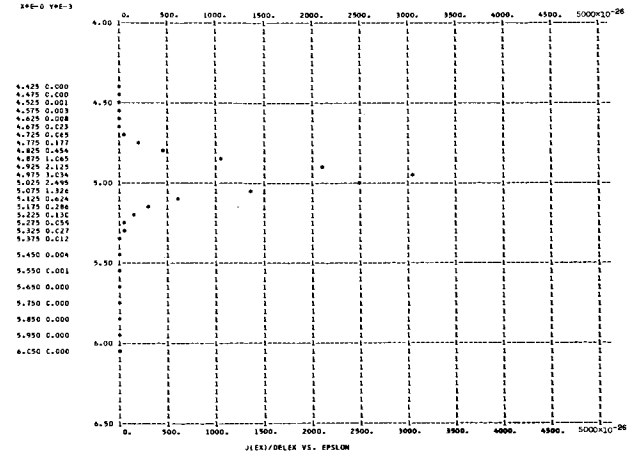
NEM = 0.45068920E 22 NEE = 0.63402200E-12 VXAV = 0.58693094E 08 KEXAV = 0.98163414E 00 KEXFL = 0.57879381E 08

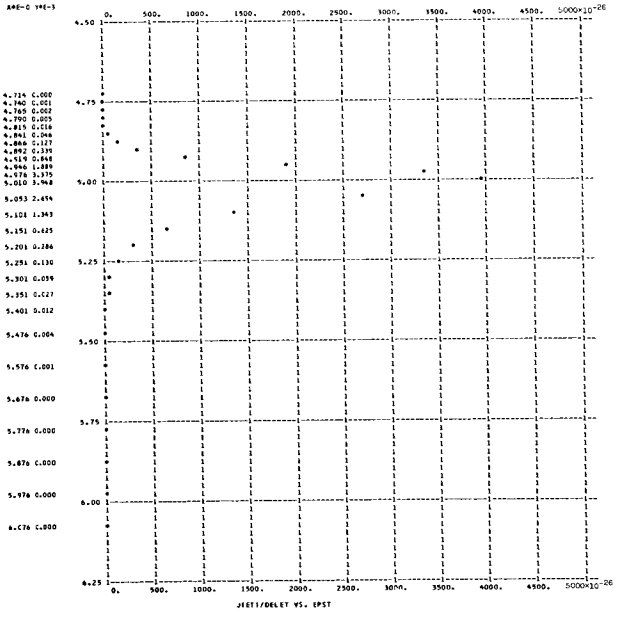
J = 0.596148E-23 KETAV= 0.102487E 01 KETFL= 0.603604E 08 TZERO = 0.792882E 04 TD = 0.351953E 03

Figure 3. - Continued.









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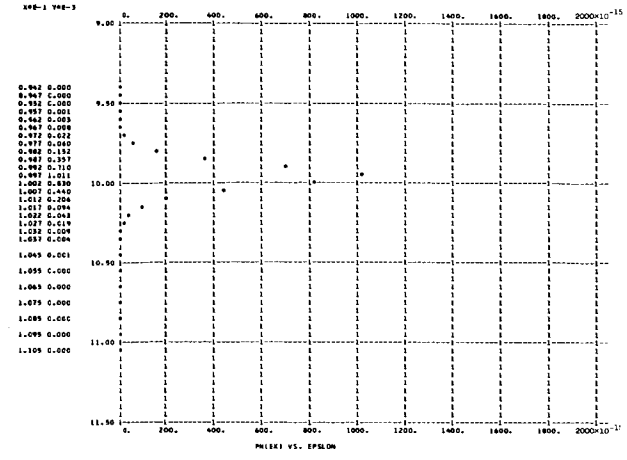
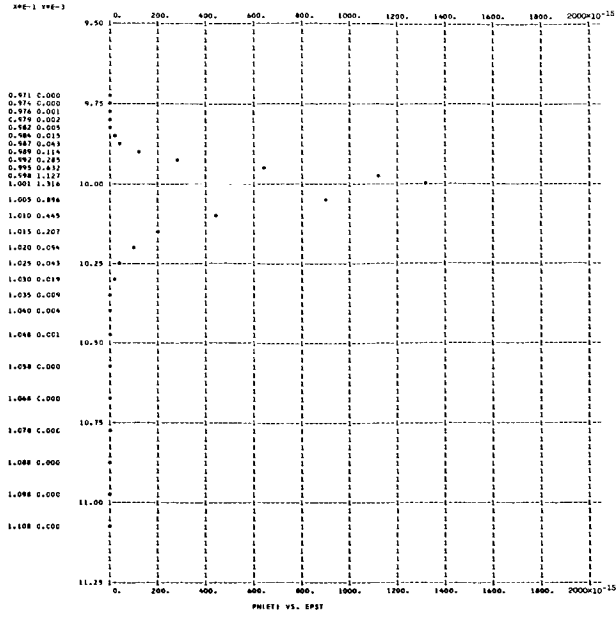
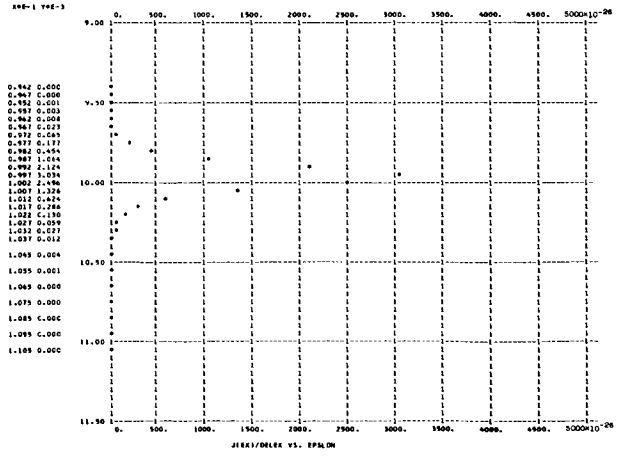
NEM = 0.50764097E 23 NEE = 0.28101280E-12 VXAV = 0.13241459E 09 KEXAV = 0.49852504E 01 KEXFL = 0.66023701E 09

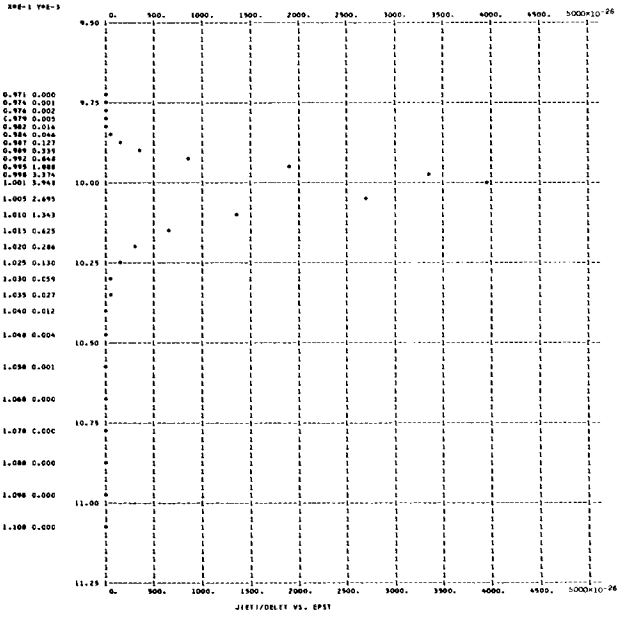
J = 0.596107E-23 KETAV= 0.502770E 01 KETFL= 0.665834E 09 TZERO = 0.388963E 05 TD = 0.331822E 03

Figure 3. -Continued.









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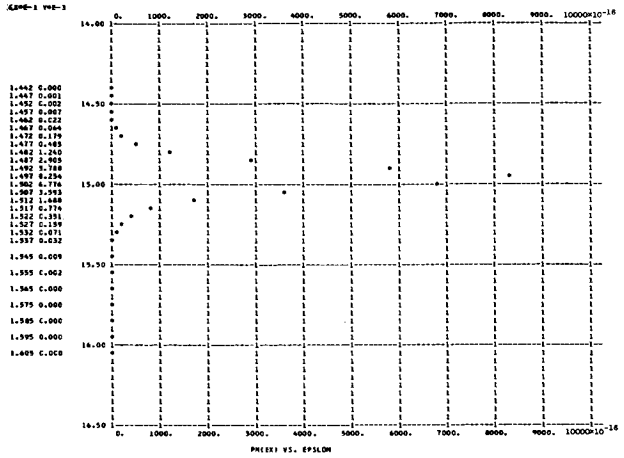
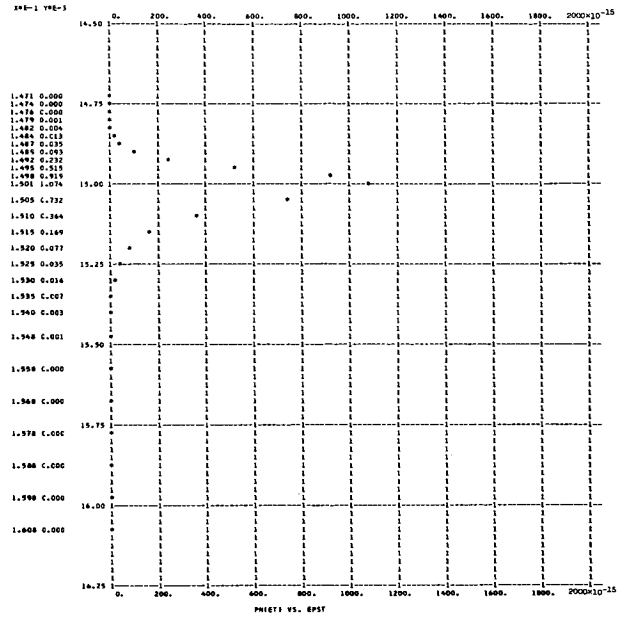
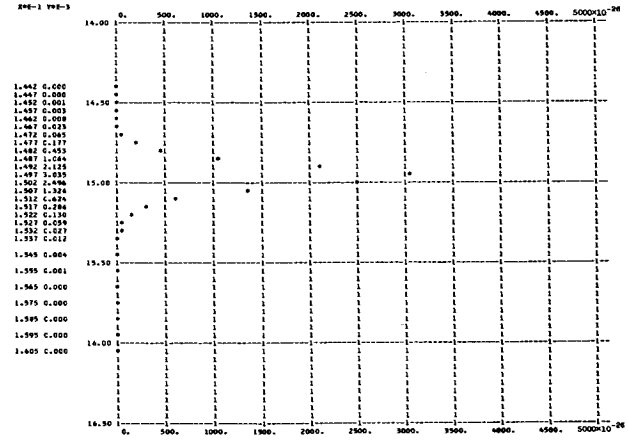
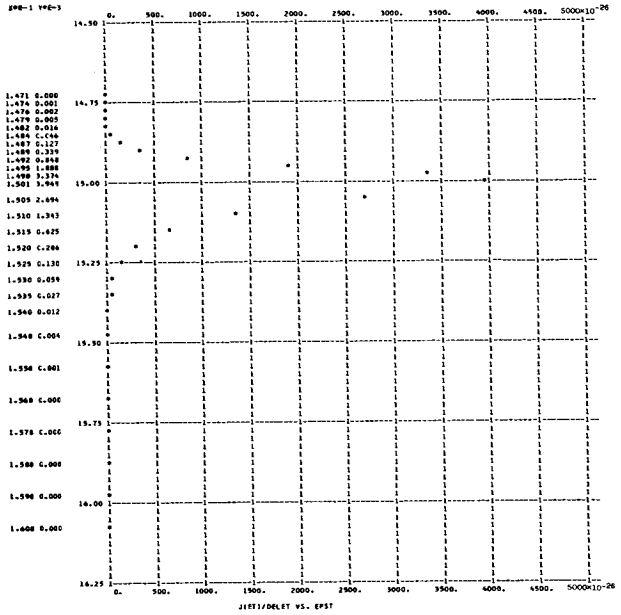
J = 0.596131E-23 KETAV= 0.100281E 02 KETFL= 0.187944E 10 TZERO = 0.775811E 05 TD = 0.329411E 03

Figure 3. - Continued.









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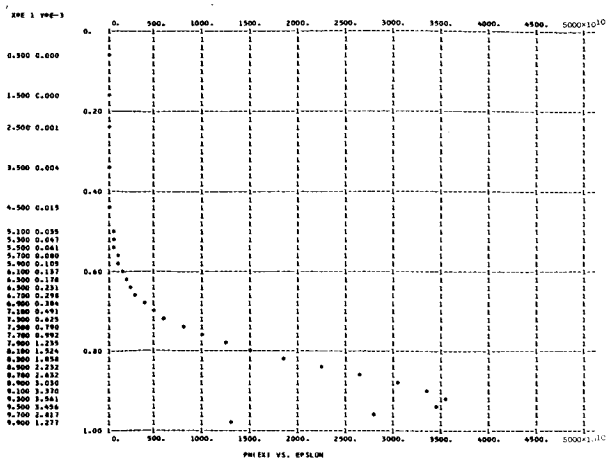
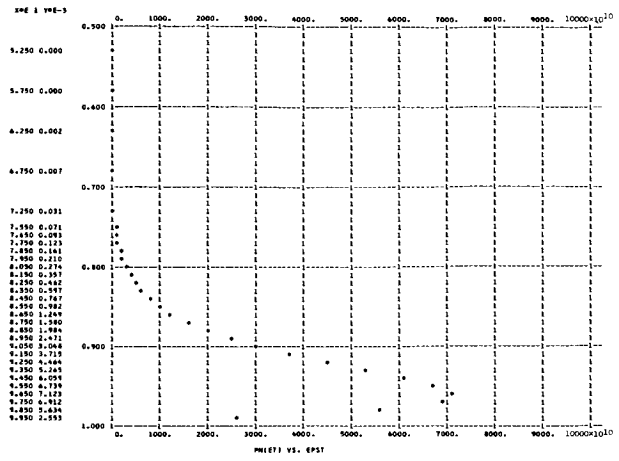
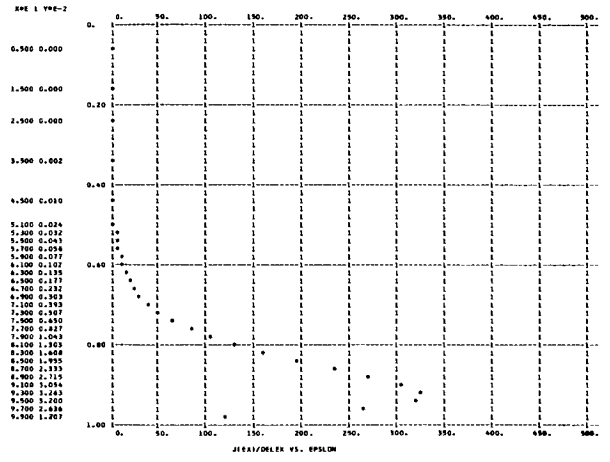
NEM = 0.26395274E 24 NEE = 0.16207765E-12 VXAV = 0.22958844E 09 KEXAV = 0.14985839E 02 KEXFL = 0.34406431E 10

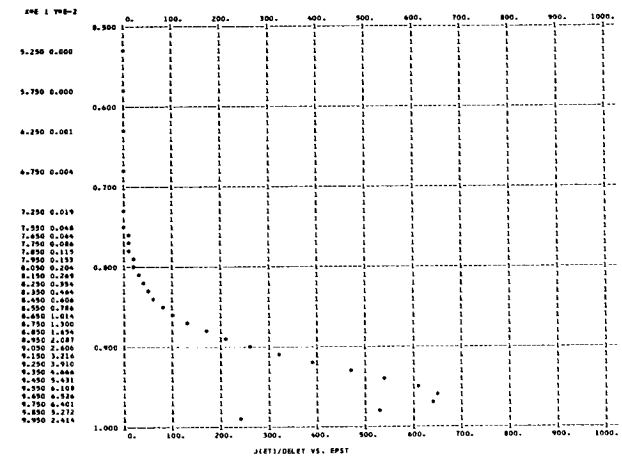
J = 0.596123E-23 KETAV= 0.150282E 02 KETFL= 0.345035E 10 TZERO = 0.116264E 06 TD = 0.328611E 03

Figure 3. - Continued.









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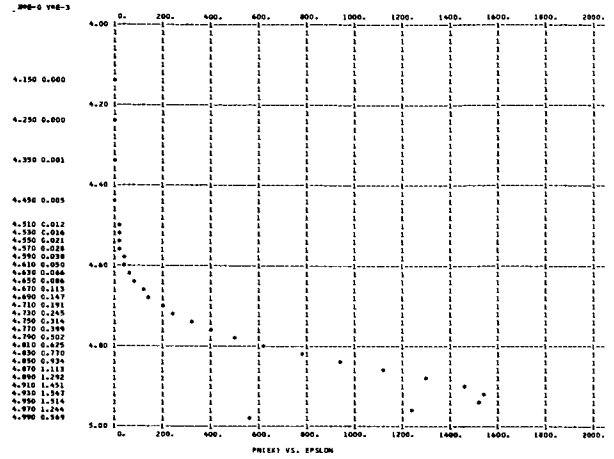
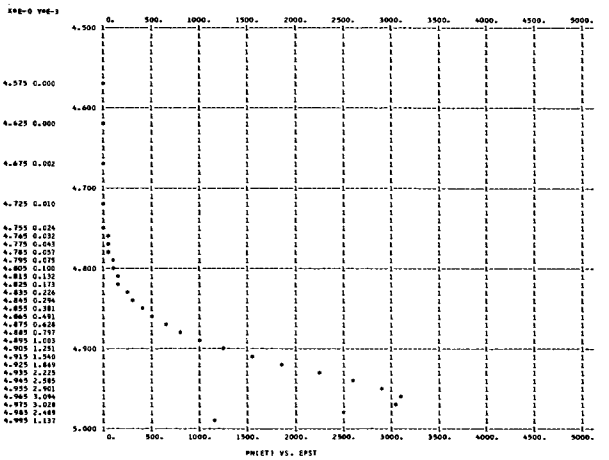
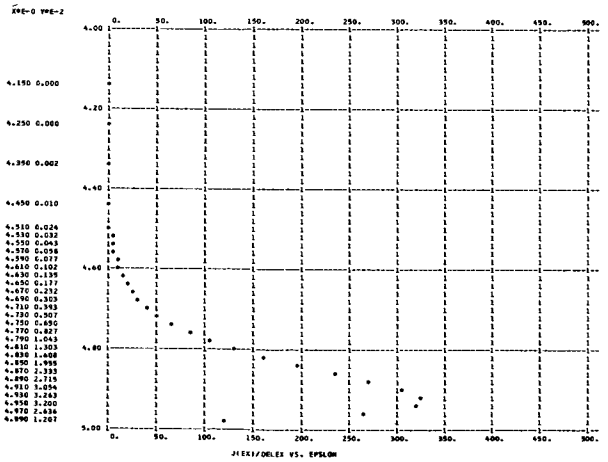
NEM = 0.45033900E 22 NEE = 0.63095395E 13 VXAV = 0.55282193E 08 KEXAV = 0.87145042E 00 KEXFL = 0.48449116E 08

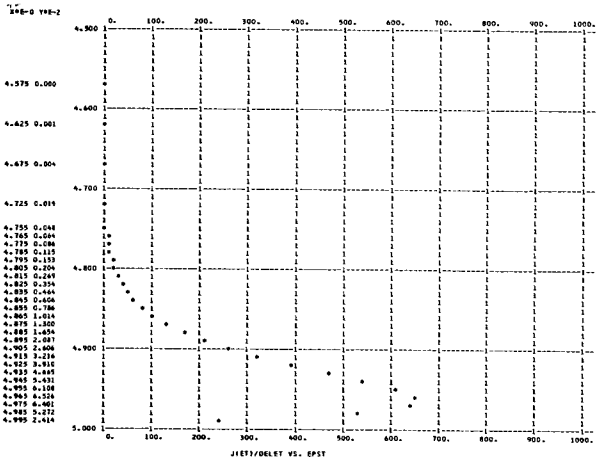
J = 0.598786E 02 KETAV= 0.935725E 00 KETFL= 0.518657E 08 TZERO = 0.723915E 04 TD = 0.517335E 03

Figure 3. - Continued.









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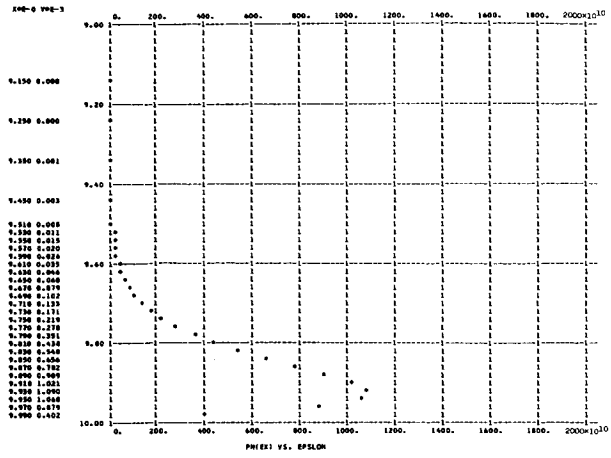
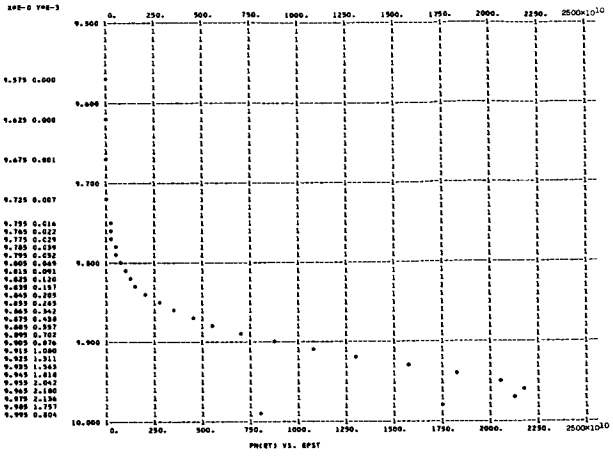
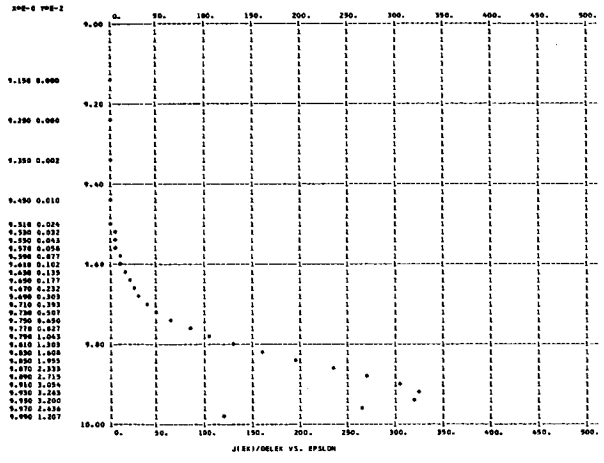
NEM = 0.50762583E 23 NEE = 0.26635342E 13 VXAV = 0.13095091E 09 KEXAV = 0.48756111E 01 KEXFL = 0.63856874E 09

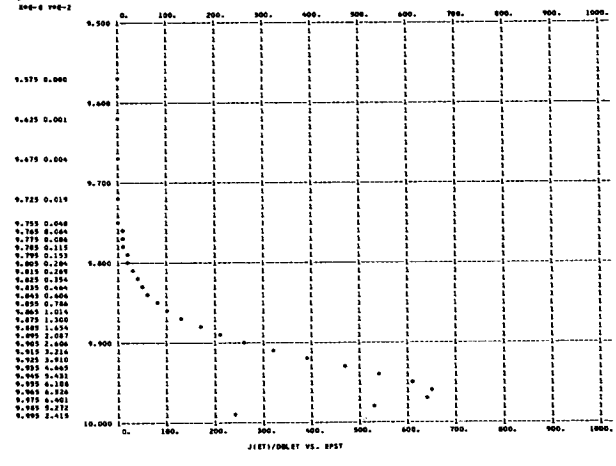
J = 0.558765E 02 KETAV= 0.493781E 01 KETFL= 0.646662E 09 TZERO = 0.382008E 05 TD = 0.484222E 03

Figure 3. - Continued.







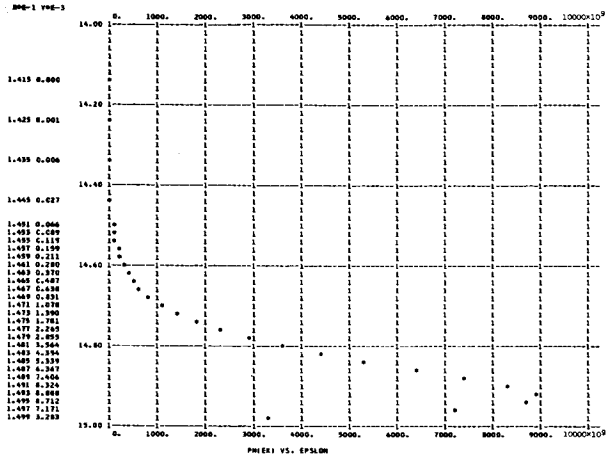


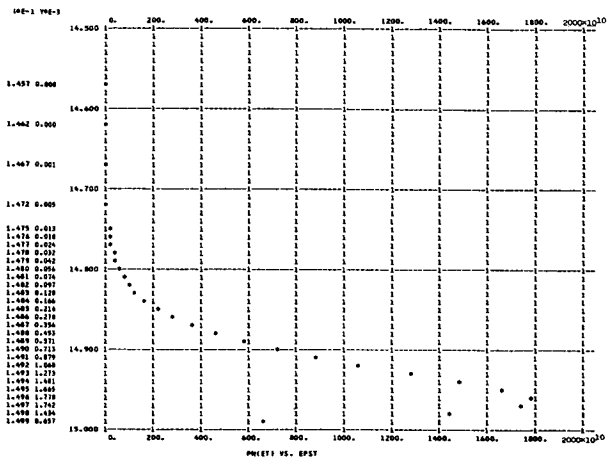
T = 0. E = 0.10000002E 08 PHI = 2.00 AMU = 10.00 EVMAX = 10.9800

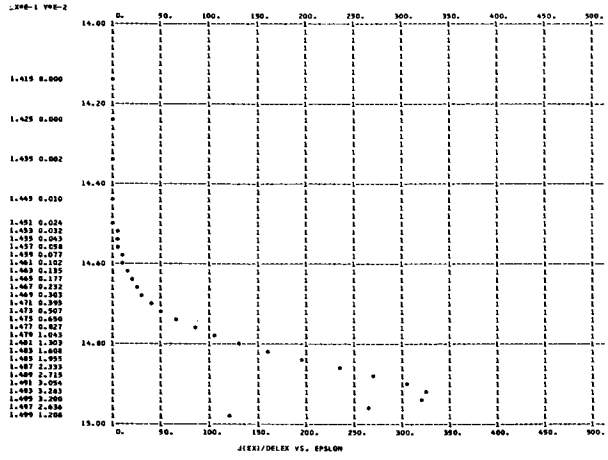
NEM = 0.14365732E 24 NEE = 0.18714137E 13 VXAV = 0.18637953E 09 KEXAV = 0.98760137E 01 KEXFL = 0.18407584E 10

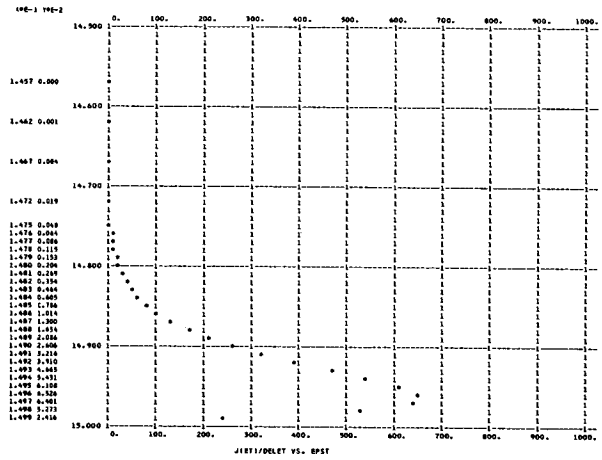
J = 0.558767E 02 KETAV= 0.993801E 01 KETFL= 0.185228E 10 TZERO = 0.768844E 05 TD = 0.481093E 03

Figure 3. - Continued.







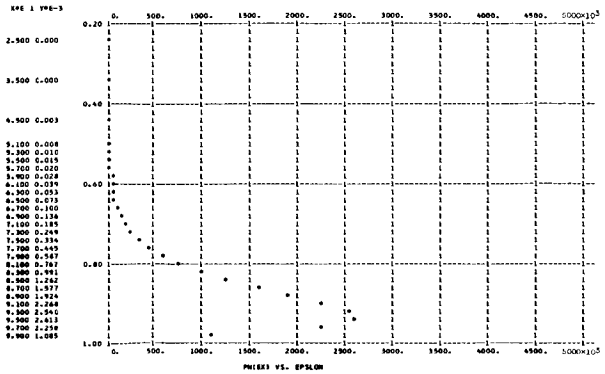


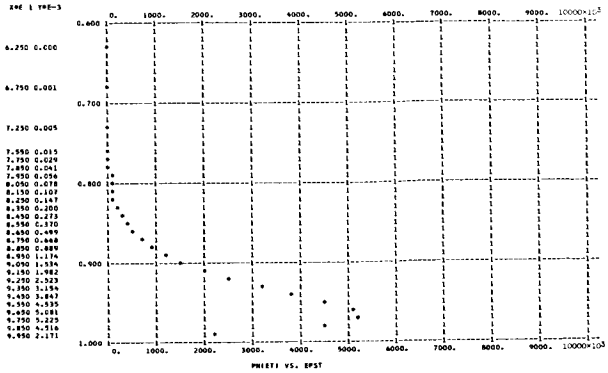
T = 0. E = 0.10000002E 08 PHI = 2.00 AMU = 15.00 EVMAX = 15.9800

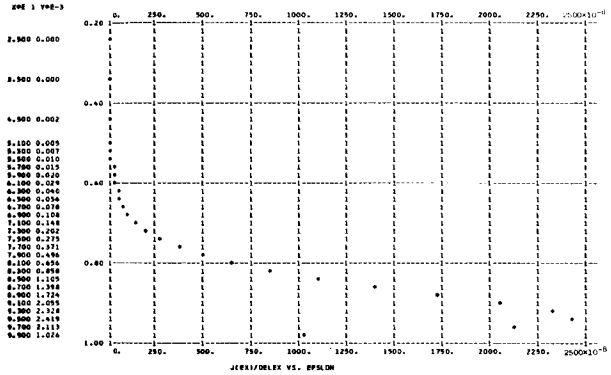
NEM = 0.26395186E 24 NEE = 0.15248069E 13 VXAV = 0.22874674E 09 KEXAV = 0.14876143E 02 KEXFL = 0.34029277E 10

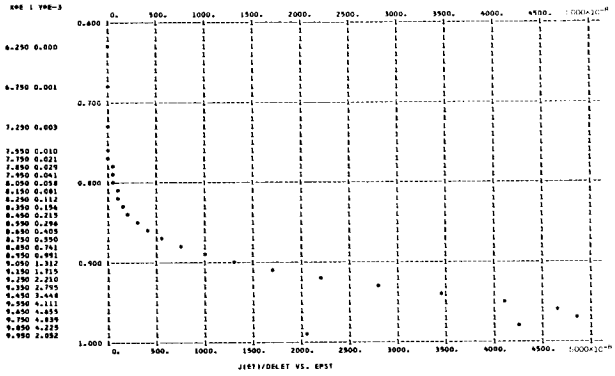
J = 0.558769E 02 KETAV= 0.149381E 02 KETFL= 0.341706E 10 TZERO = 0.115567E 06 TD = 0.480084E 03

Figure 3. - Continued.







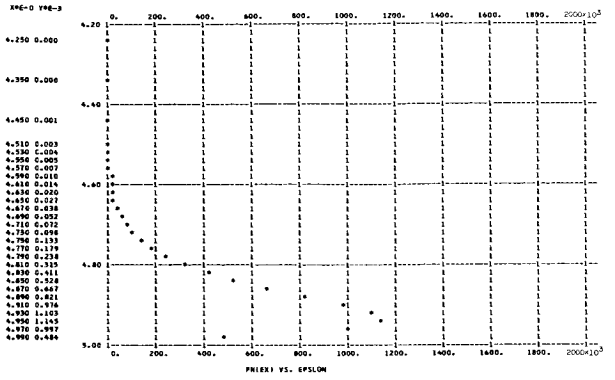


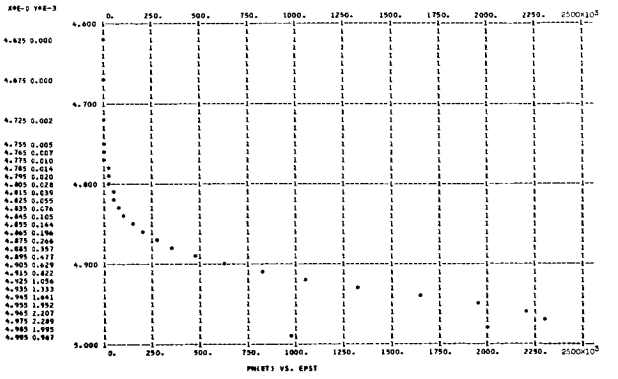
T = 0. E = 0.10000002E 08 PHI = 3.00 AMU = 1.00 EVMAX = 2.9201

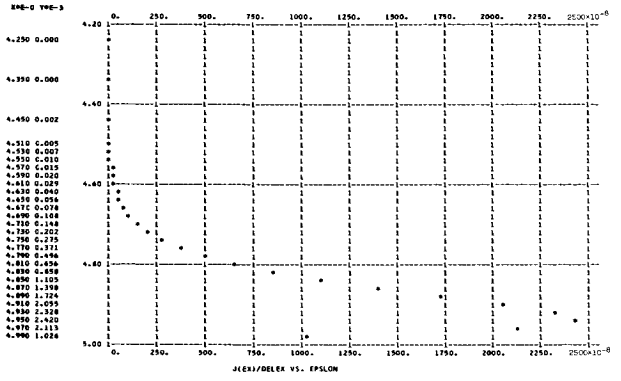
NEM = 0.45033900E 22 NEE = 0.39169054E 06 VXAV = 0.55946288E 08 KEXAV = 0.89163686E 00 KEXFL = 0.50075831E 08

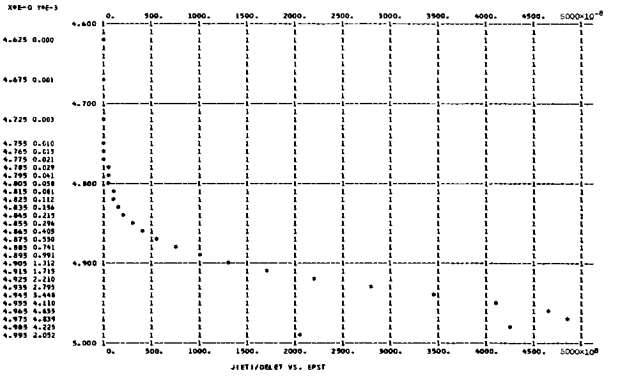
J = 0.351056E-05 KETAV= 0.945818E 00 KETFL= 0.530111E 08 TZERO = 0.731723E 04 TD = 0.432954E 03

Figure 3. - Continued.







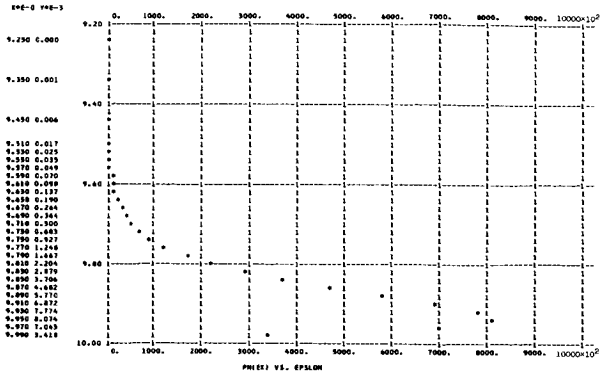


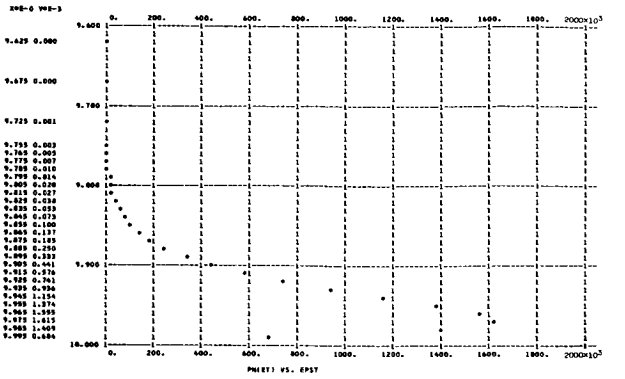
T = 0. E = 0.10000002E 08 PHI = 3.00 AMU = 5.00 EVMAX = 6.9201

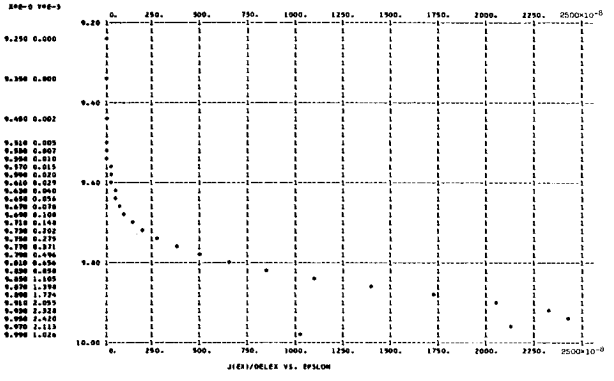
NEN = 0.50762583E 23 NEE = 0.16701271E 06 VXAV = 0.13120579E 09 KEXAV = 0.48944996E 01 KEXFL = 0.64226167E 09

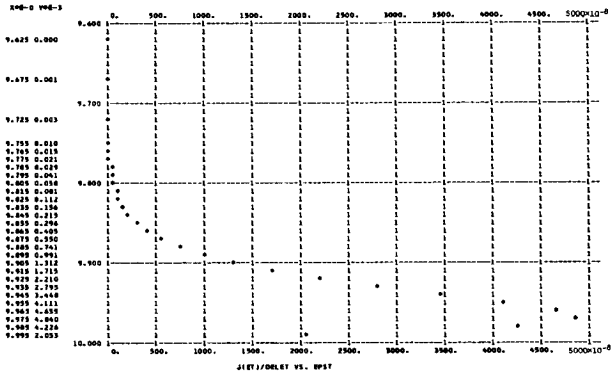
J = 0.351047E-05 KETAV= 0.494725E 01 KETFL= 0.649145E 09 TZERO = 0.382739E 05 TD = 0.410319E 03

Figure 3. - Continued.







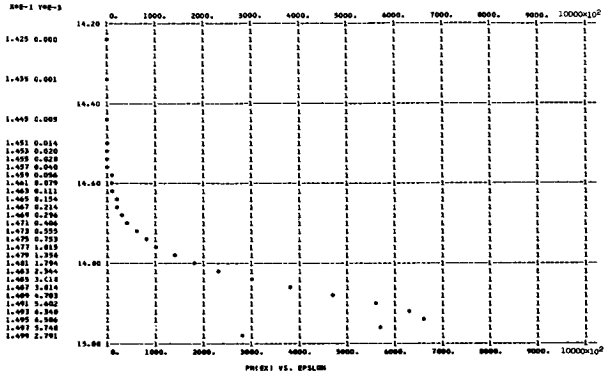


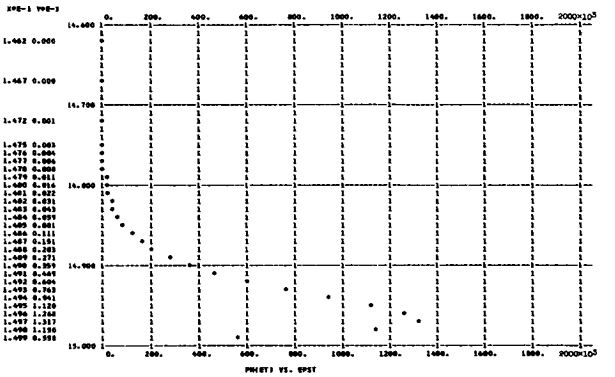
T = 0. TE = 0.10000002E 08 PHI = 3.00 AMU = 10.00 EVMAX = 11.9201

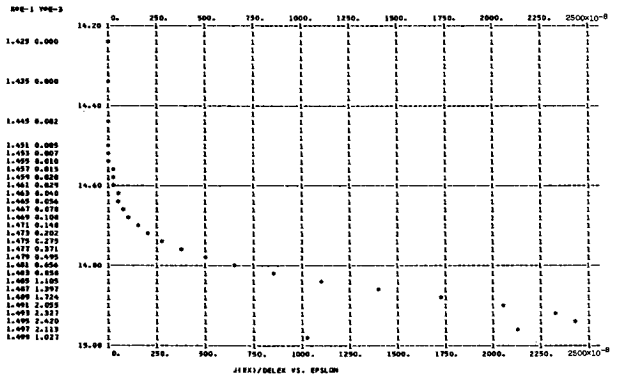
NEM = 0.14365732E 24 NEE = 0.11746288E 06 VXAV = 0.18655712E 09 KEXAV = 0.98947906E 01 KEXFL = 0.18459959E 10

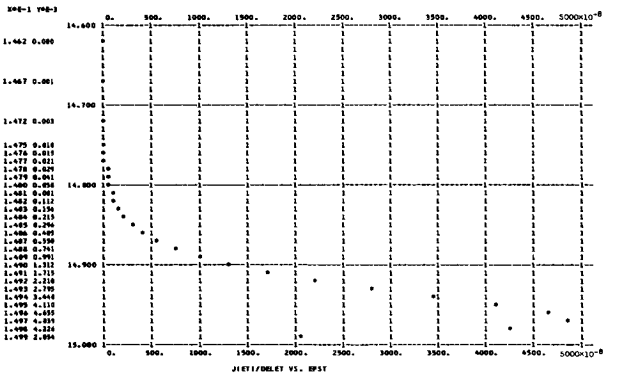
J = 0.351055E-05 KETAV= 0.994740E 01 KETFL= 0.185578E 10 TZERO = 0.769570E 05 TD = 0.408056E 03

Figure 3. - Continued.







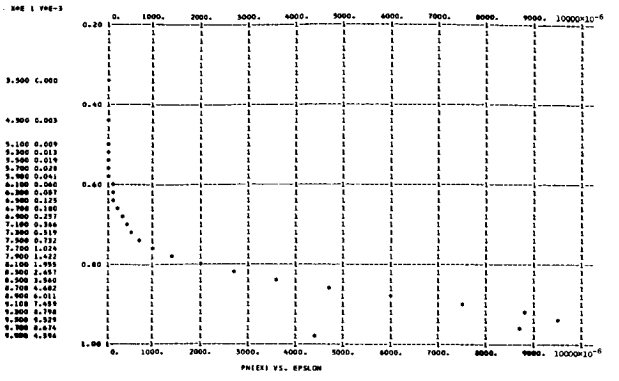


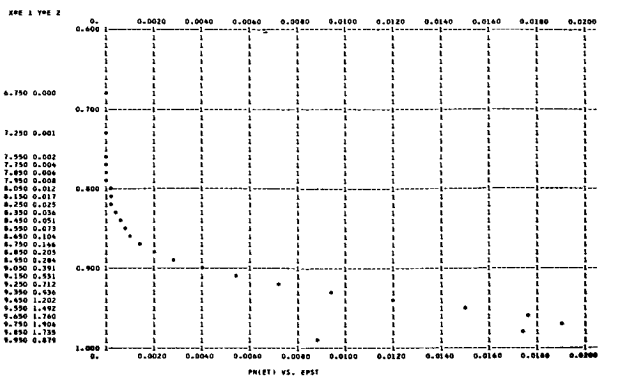
T = 0. E = 0.10000002E 08 PHI = 3.00 AMU = 15.00 EVMAX = 16.9201

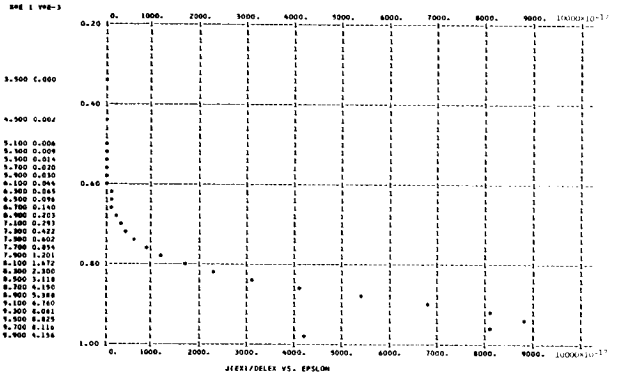
NEM = 0.26395186E 24 NEE = 0.95737400E 05 VXAV = 0.22889105E 09 KEXAV = 0.14894885E 02 KEXFL = 0.34093484E 10

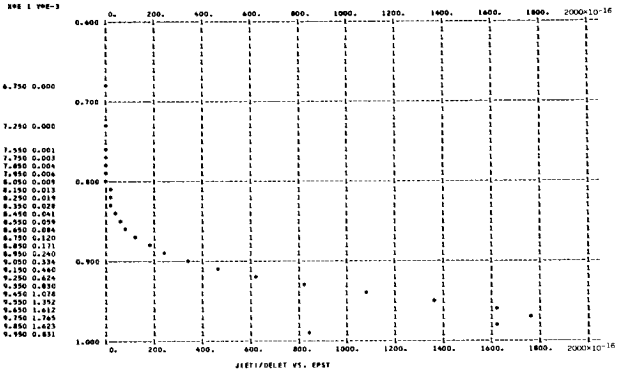
J = 0.351053E-05 KETAV= 0.149474E 02 KETFL= 0.342136E 10 TZERO = 0.115639E 06 TD = 0.407324E 03

Figure 3. - Continued







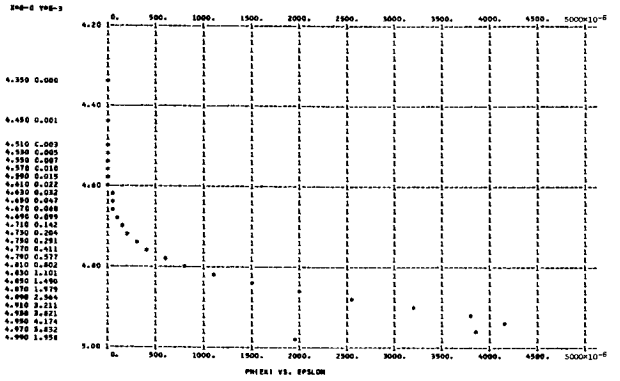


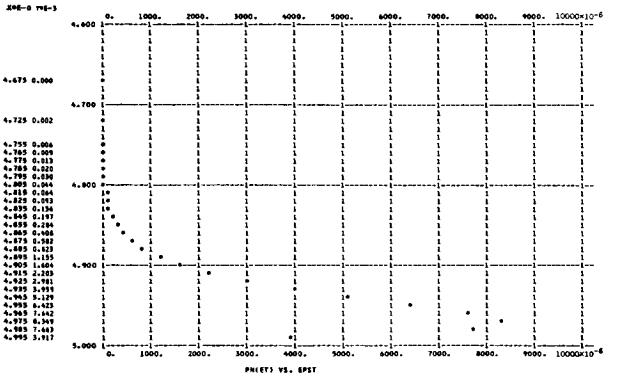
T = 0. E = 0.10000002E 08 PHI = 4.00 AMU = 1.00 EVMAX = 3.8901

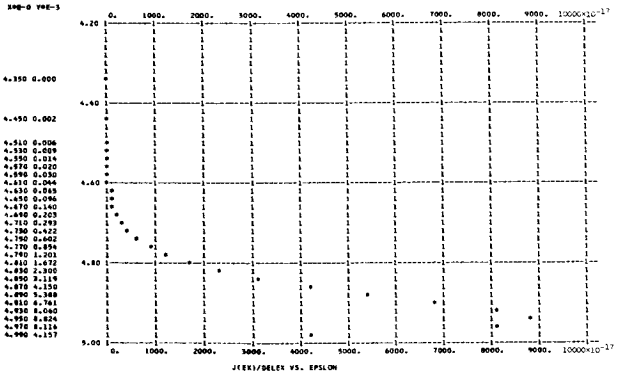
NEM = 0.45033900E 22 NEE = 0.12524117E-02 VXAV = 0.56375641E 08 KEXAV = 0.90491431E 00 KEXFL = 0.51162490E 08

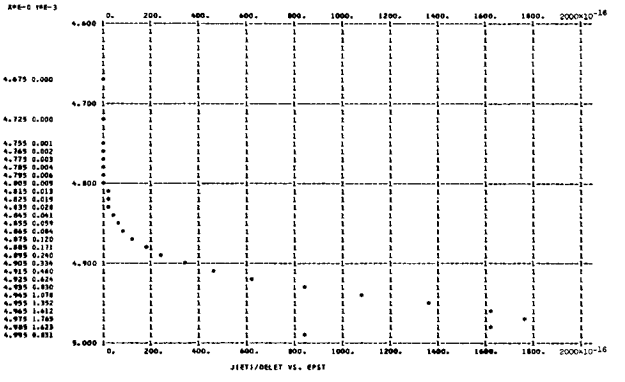
J = 0.113110E-13 KETAV= 0.952457E 00 KETFL= 0.537691E 08 TZERO = 0.736859E 04 TD = 0.378243E 03

Figure 3. - Continued.







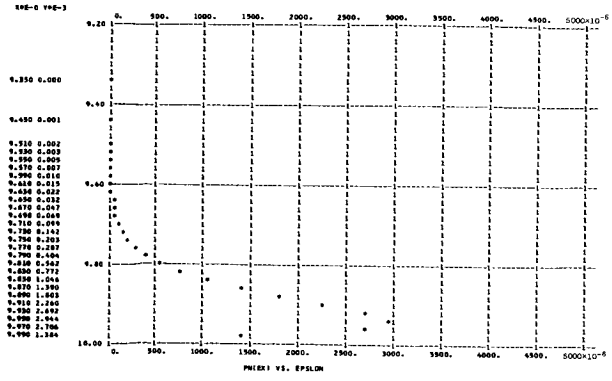


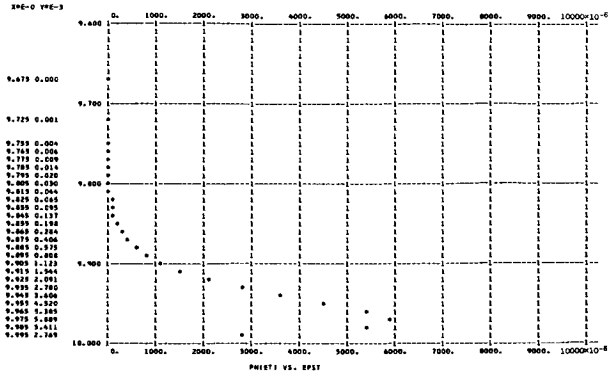
T = 0. E = 0.10000002E 08 PHI = 4.00 AMU = 5.00 EVMAX = 7.8901

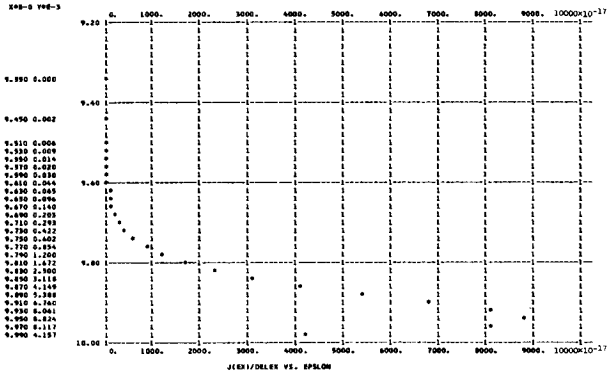
NEM = 0.50762583E 23 NEE = 0.53742970E-03 VXAV = 0.13137516E 09 KEXAV = 0.49070807E 01 KEXFL = 0.64472723E 09

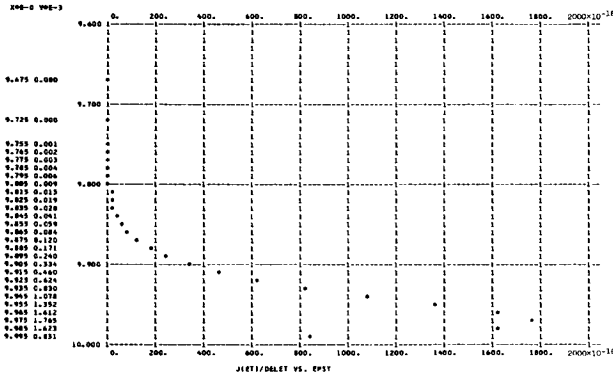
J = 0.113109E-13 KETAV= 0.495354E 01 KETFL= 0.650802E 09 TZERO = 0.383226E 05 TD = 0.361167E 03

Figure 3. - Continued.







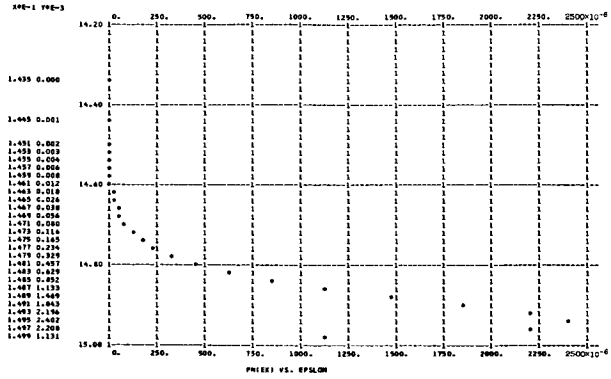


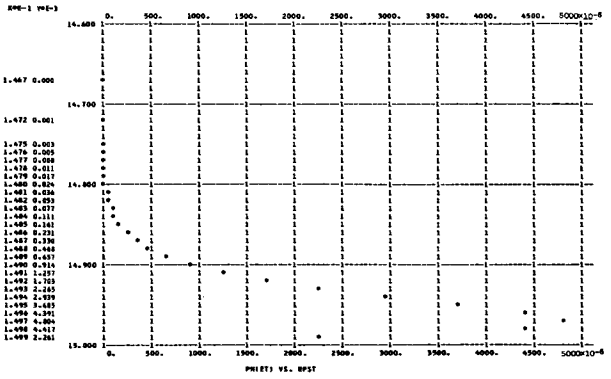
T = 0. E = 0.10000002E 08 PHI = 4.00 AMU = 10.00 EVMAX = 12.8901

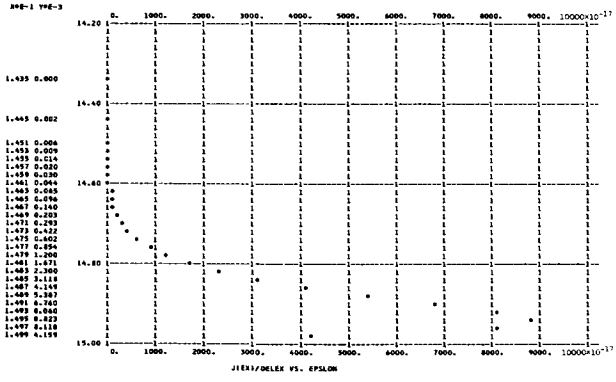
NER = 0.14365732E 24 NEE = 0.37821816E-03 VXAV = 0.186675376 09 KEXAV = 0.99073083E 01 KEXFL = 0.18494914E 10

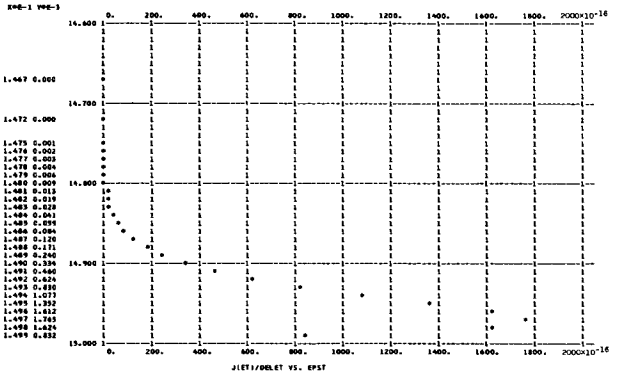
J = 0.113108E-13 KETAV= 0.995365E 01 KETFL= 0.185812E 10 TZERO = 0.770055E 05 TD = 0.359403E 03

Figure 3. - Continued.







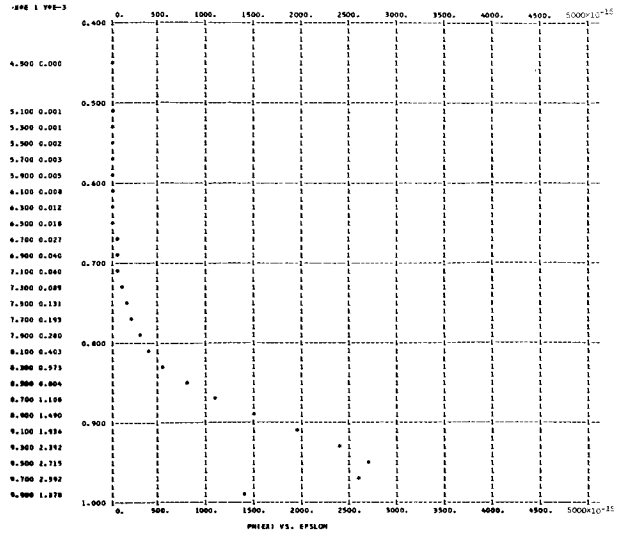


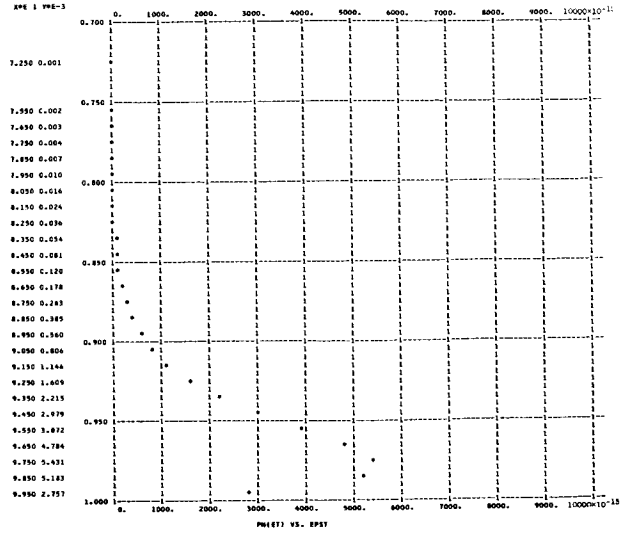
T = 0. E = 0.10000002E 08 PHI = 4.00 AMU = 15.00 EVMAX = 17.8901

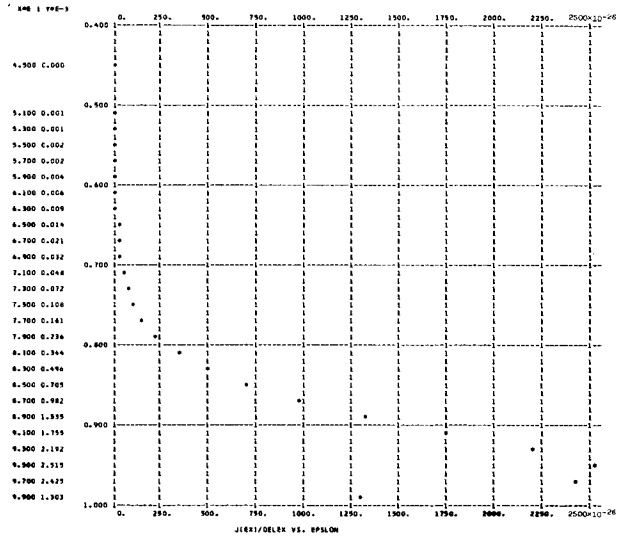
NEM = 0.26395186E 24 NEE = 0.30833674E-03 VXAV = 0.22898721E 09 KEXAV = 0.14907382E 02 KEXFL = 0.34136332E 10

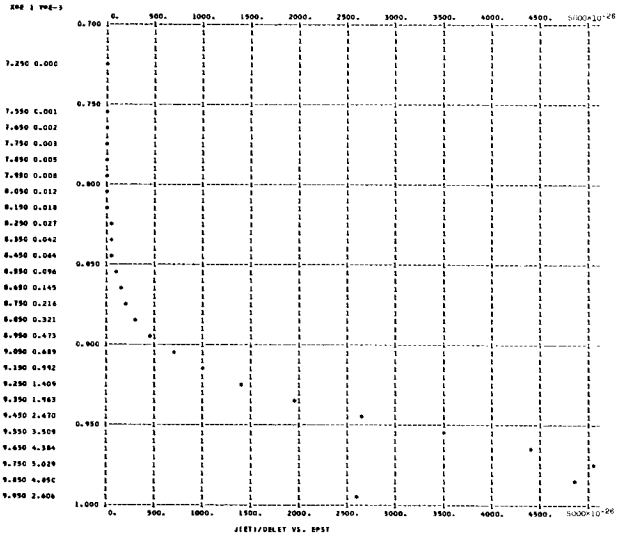
J = 0.113109E-13 KETAV= 0.149537E 02 KETFL= 0.342422E 10 TZERO = 0.115688E 06 TD = 0.358828E 03

Figure 3. - Continued.







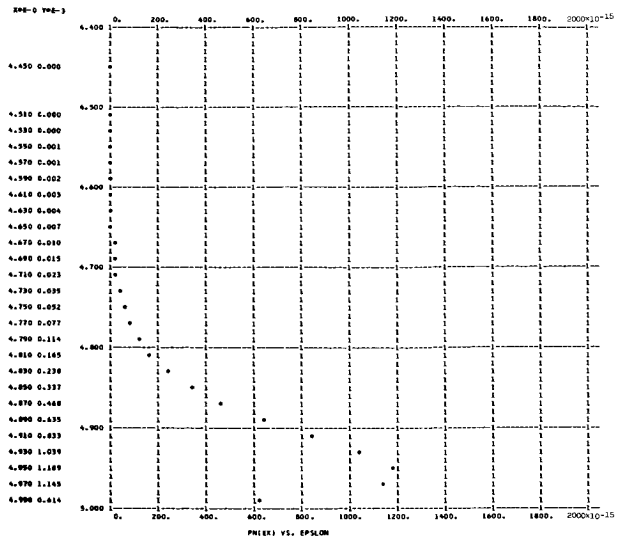


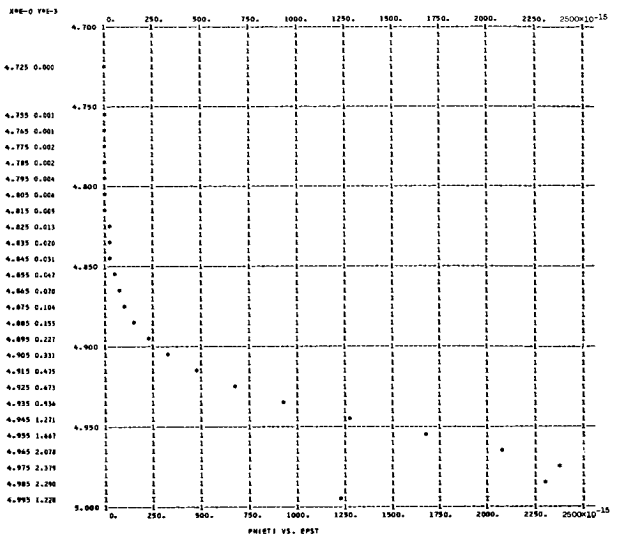
T = 0. E = 0.10000002E 08 PHI = 5.00 AMU = 1.00 EVMAX = 4.8721

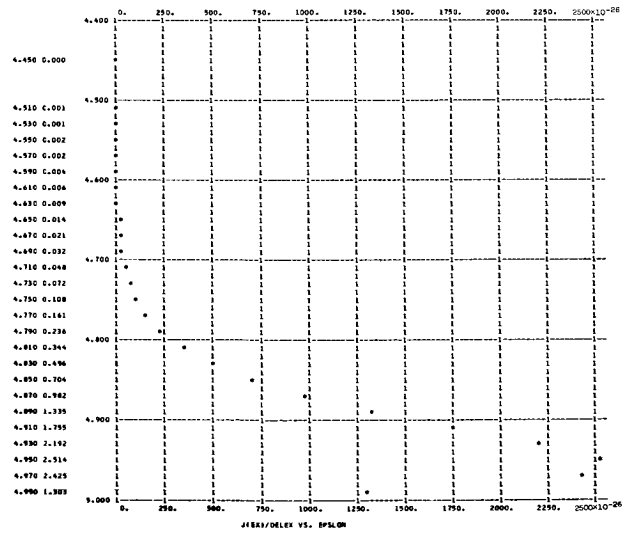
NEM = 0.45033900E 22 NEE = 0.32527770E-12 VXAV = 0.56682339E 08 KEXAV = 0.91450284E 00 KEXFL = 0.51955196E 08

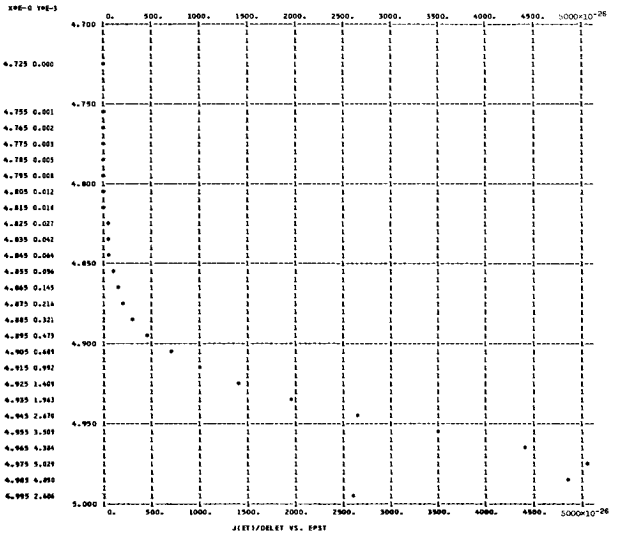
J = 0.295369E-23 KETAV= 0.957251E 00 KETFL= 0.543188E 08 TZERO = 0.740568E 04 TD = 0.339068E 03

Figure 3. - Continued.







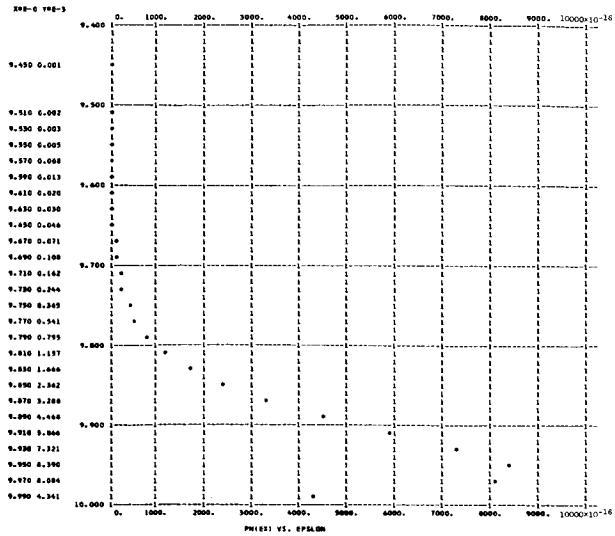


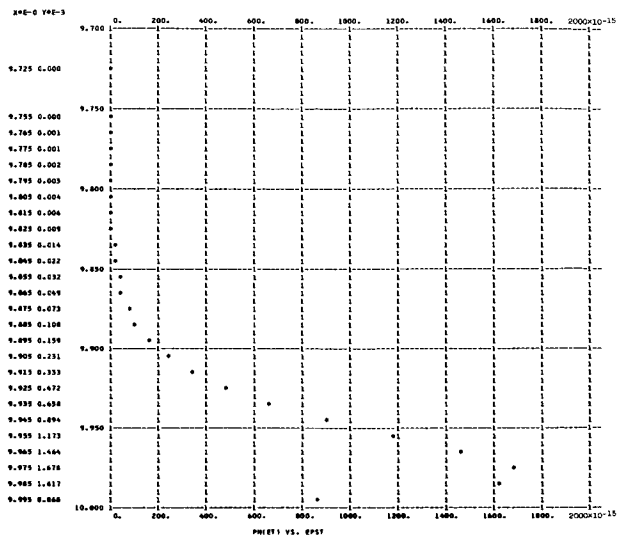
T = 0. E = 0.10000002E 08 PHI = 5.00 AMU = 5.00 EVMAX = 8.8721

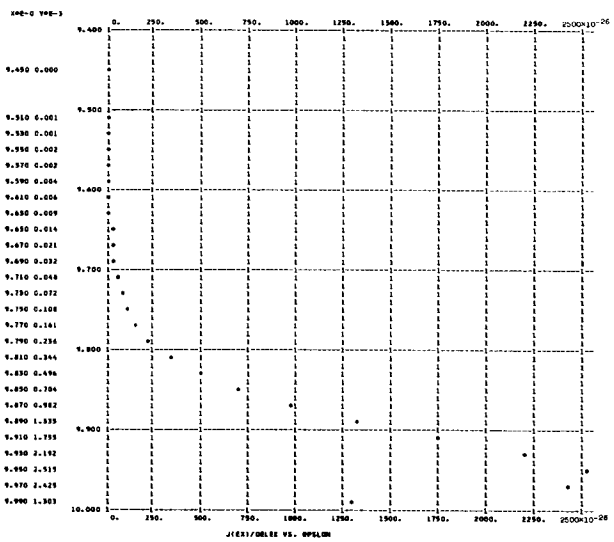
NEM = 0.50762583E 23 NEE = 0.14020536E-12 VXAV = 0.13149822E 09 KEXAV = 0.49162365E 01 KEXFL = 0.64652444E 09

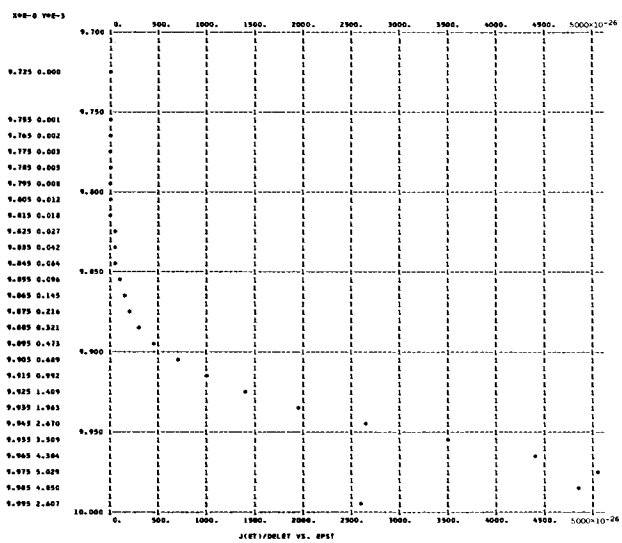
J = 0.295357E-23 KETAV= 0.495812E 01 KETFL= 0.652008E 09 TZERO = 0.383580E 05 TD = 0.325433E 03

Figure 3. - Continued.







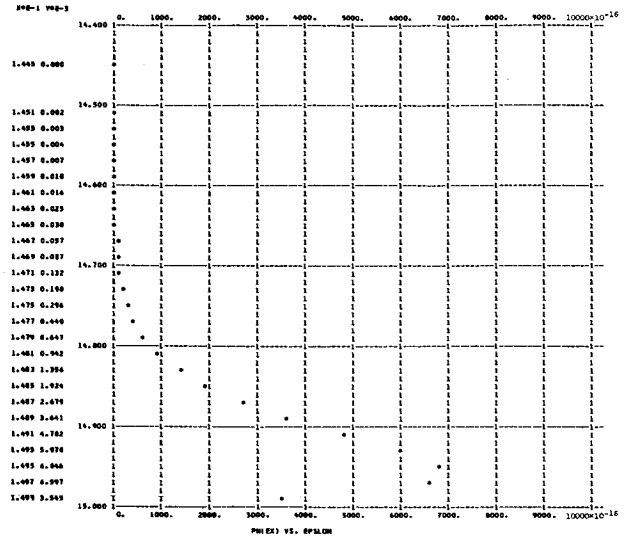


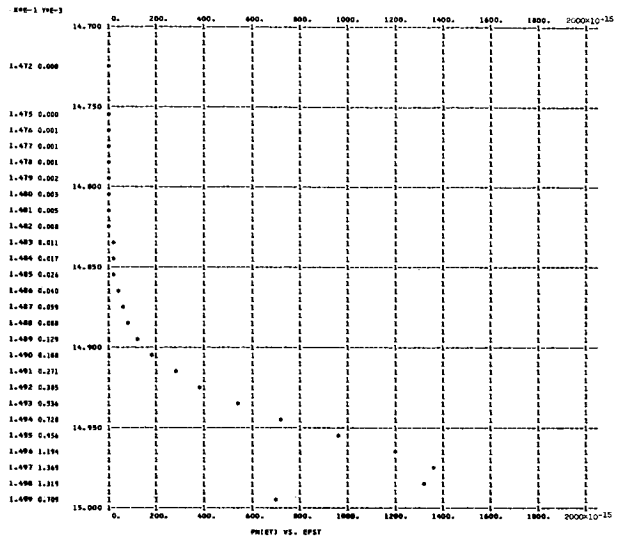
T = 0. E = 0.10000002E 08 PHI = 5.00 AMU = 10.00 EVMAX = 13.8721

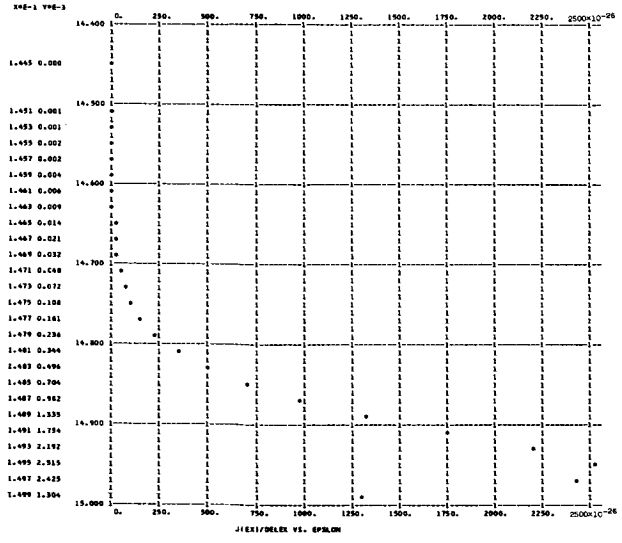
NEM = 0.14365732E 24 NEE = 0.98721384E-13 VXAV = 0.18676141E 09 KEXAV = 0.99164229E 01 KEXFL = 0.18520388E 10

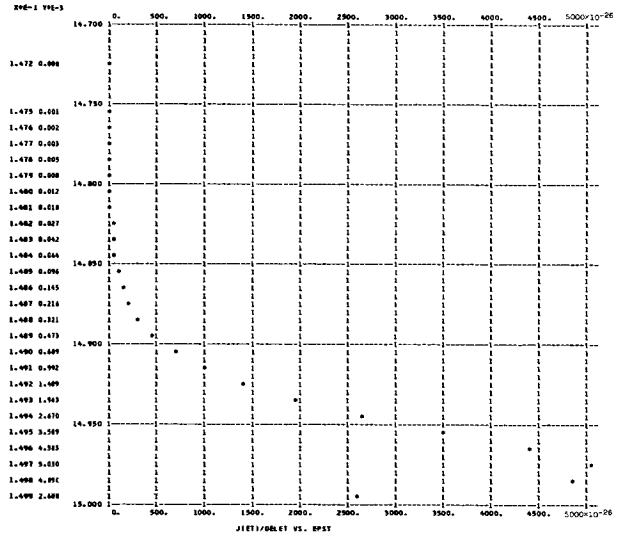
J = 0.295366E-23 KETAV= 0.995821E 01 KETFL= 0.185983E 10 TZERO = 0.770407E 05 TD = 0.323990E 03

Figure 3. - Continued.







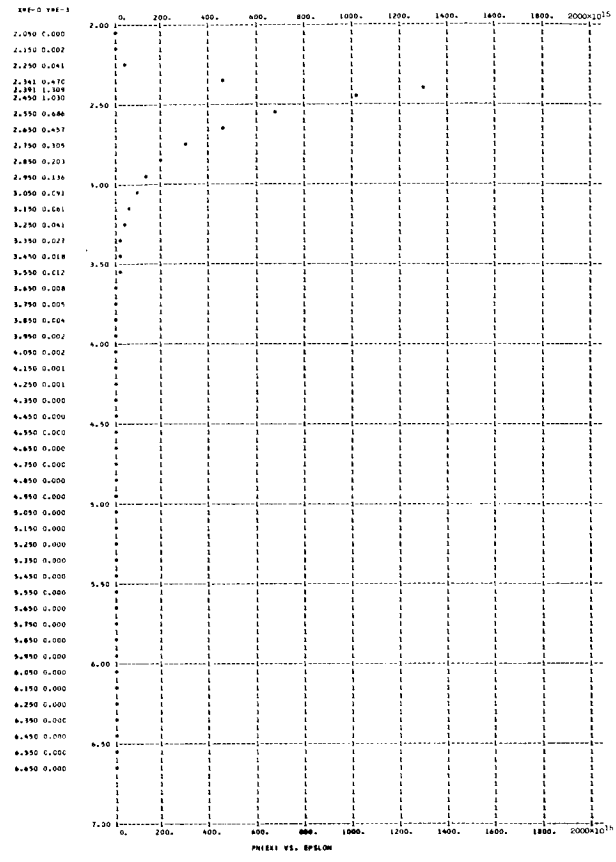


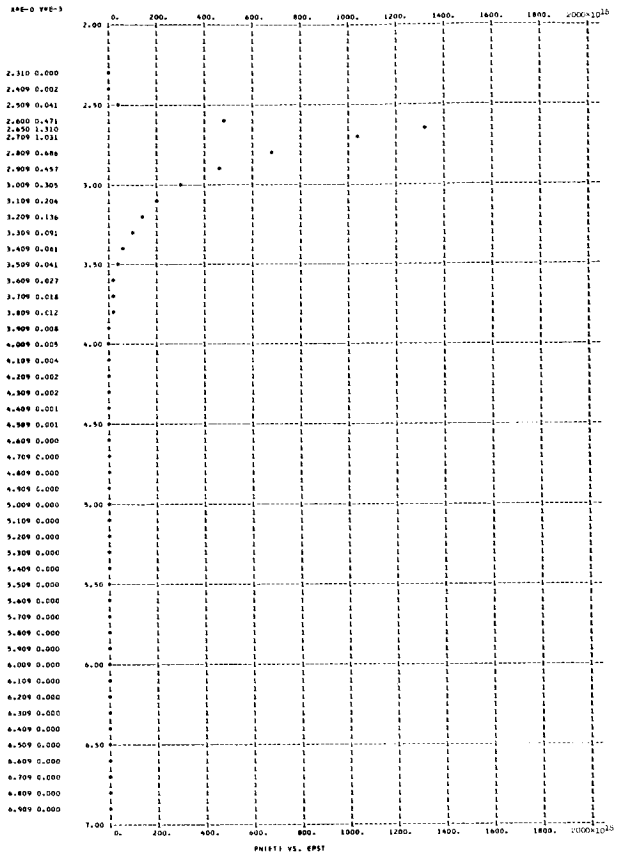
T = 0. E = 0.10000002E 08 PHI = 5.00 AMU = 15.00 EVMAX = 18.8721

NEN = 0.26395186E 24 NEE = 0.80489697E-13 VXAV = 0.22905720E 09 KEXAV = 0.14916483E 02 KEXFL = 0.34167553E 10

J = 0.295357E-23 KETAV= 0.149582E 02 KETFL= 0.342631E 10 TZERO = 0.115723E 06 TD = 0.323521E 03

Figure 3. - Continued.



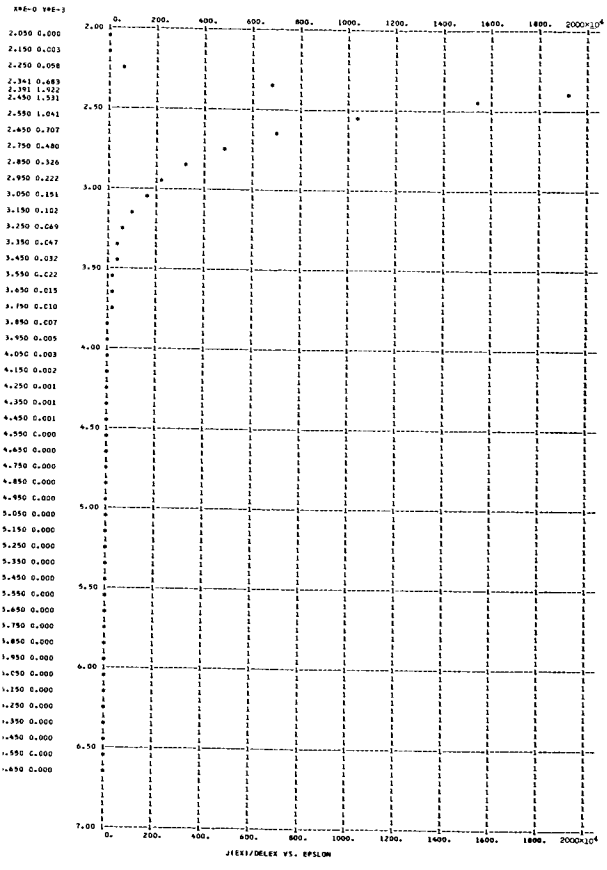


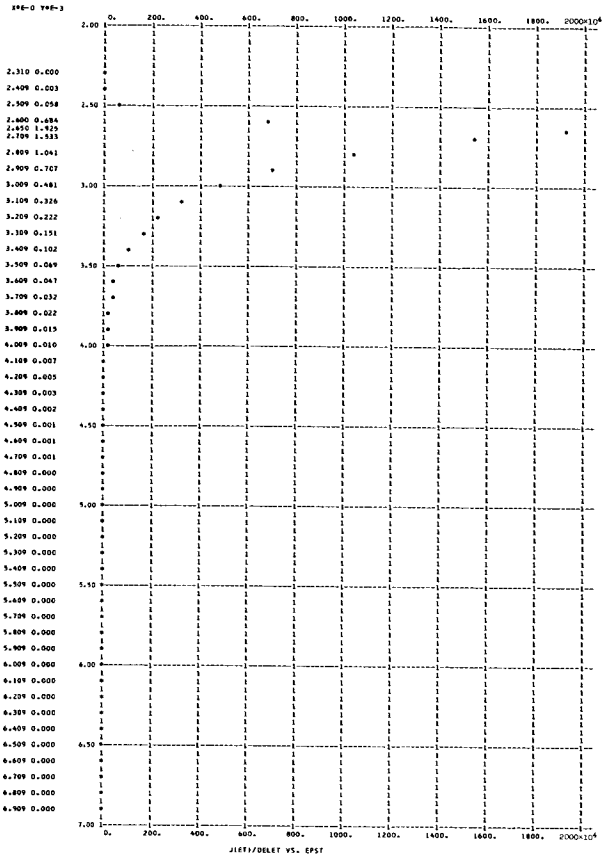
T = 0.30000000E 04 E = 0.31622783E 07 PHI = 2.00 AMU = 1.00 EVMAX = 2.3821

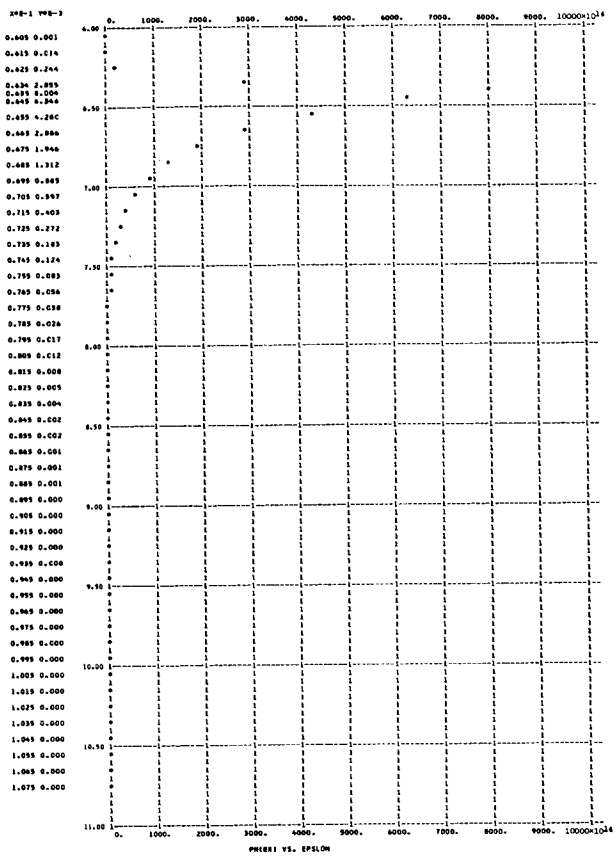
NEM = 0.49014203E 22 NEE = 0.37541854E 18 VXAV = 0.95493074E 08 KEXAV = 0.25981475E 01 KEXFL = 0.24922410E 09

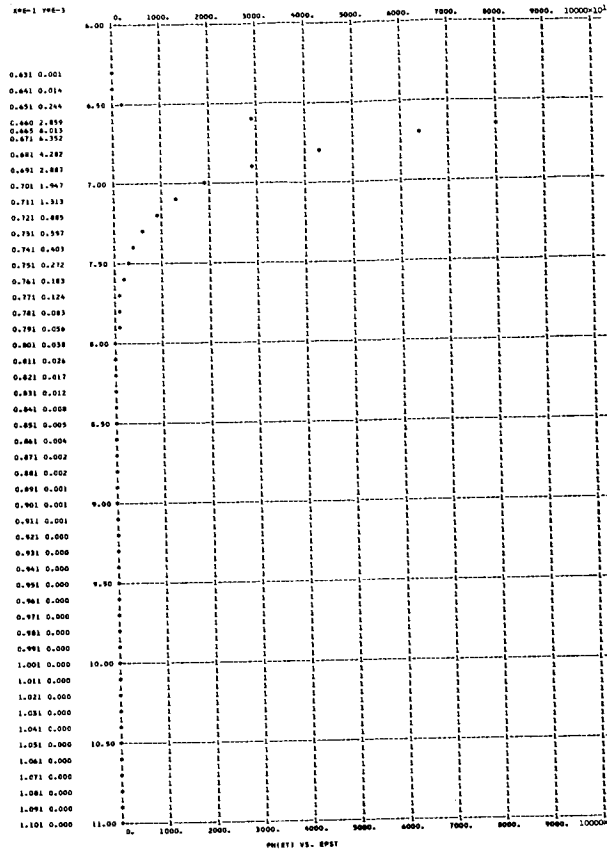
J = 0.574315E 07 KETAV= 0.285684E 01 KETFL= 0.273927E 09 TZERO = 0.221017E 05 TD = 0.204500E 04

Figure 3. - Continued.


J(EXI/DELEX VS. EPSLON


J(ET)/DELET VS. EPST



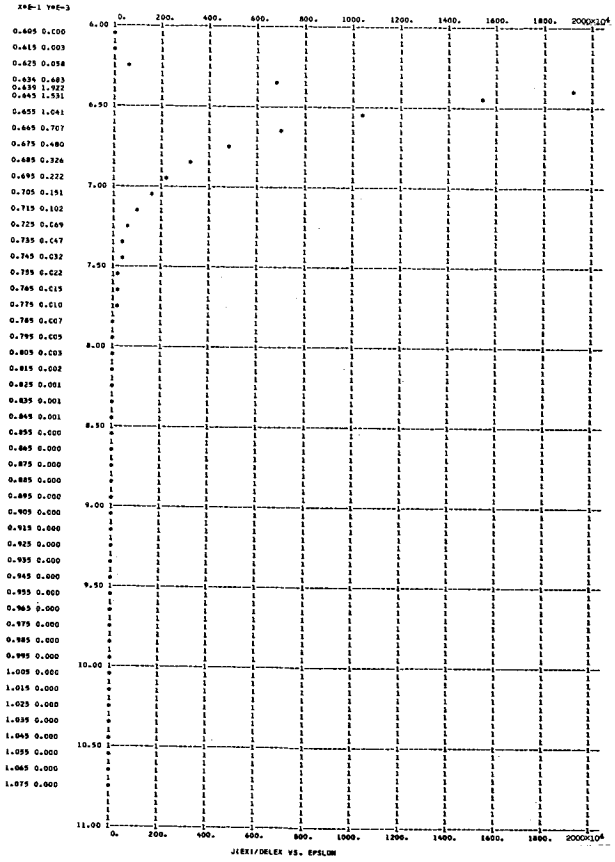


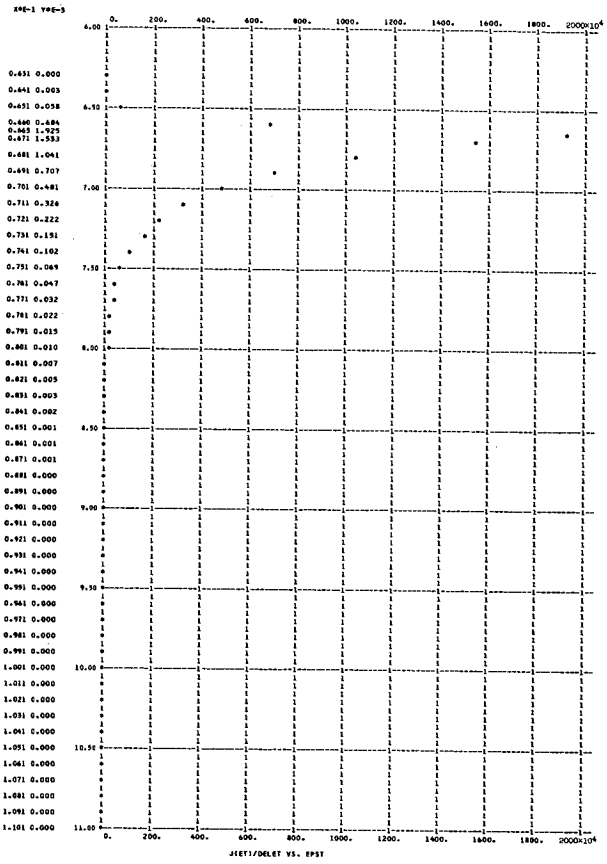
T = 0.30000000E 04 E = 0.31622783E 07 PHI = 2.00 AMU = 5.00 EVMAX = 6.3821

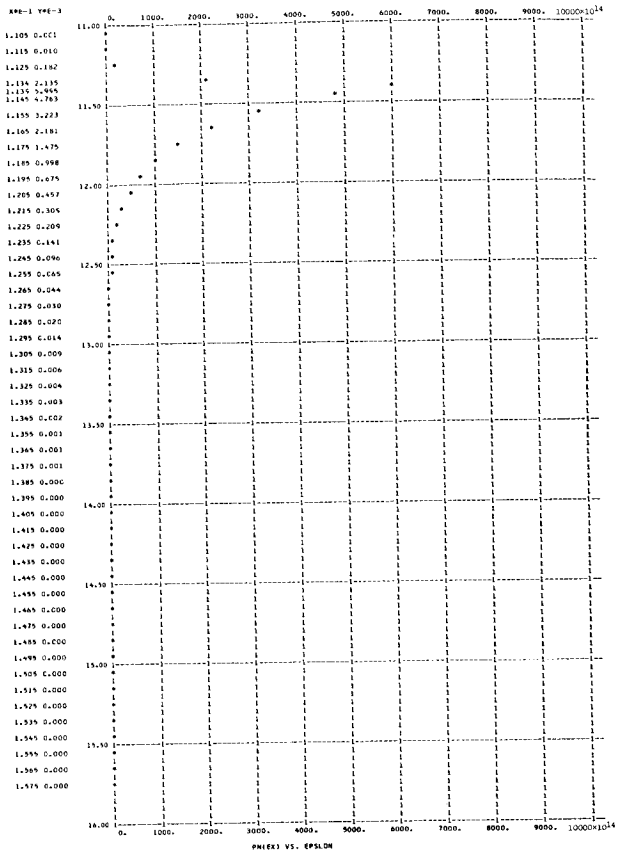
NEM = 0.50929833E 23 NEE = 0.23523683E 18 VXAV = 0.15239350E 09 KEXAV = 0.66049413E 01 KEXFL = 0.10073008E 10

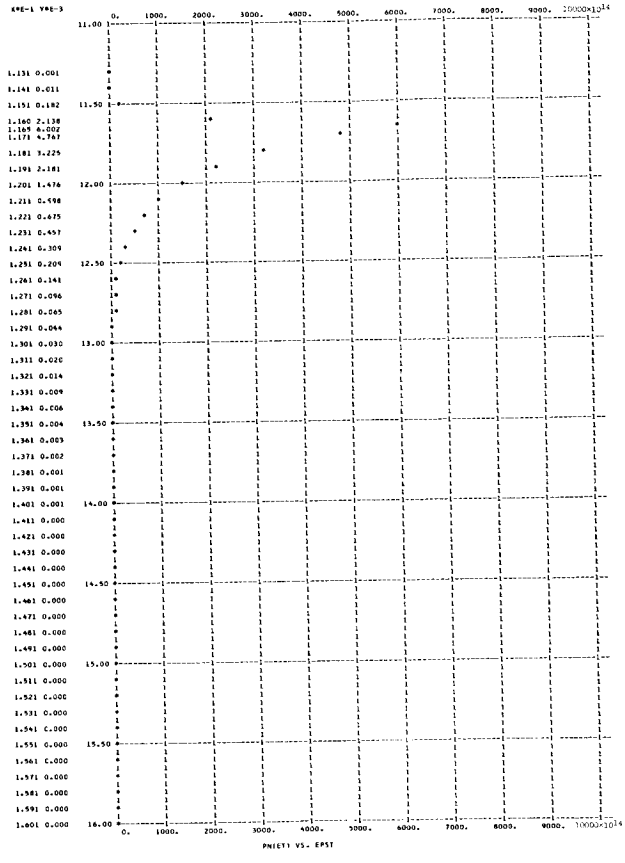
J = 0.574294E 07 KETAV= 0.686364E 01 KETFL= 0.104672E 10 TZERO = 0.530998E 05 TD = 0.202010E 04

Figure 3. - Continued.


X=E-1 Y=E-3
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000×10⁴
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
0.605 0.000
0.615 0.003
0.625 0.058
0.634 0.483
0.639 1.922
0.645 1.531
0.655 1.041
0.665 0.707
0.675 0.480
0.685 0.326
0.695 0.222
0.705 0.151
0.715 0.102
0.725 0.069
0.735 0.047
0.745 0.032
0.755 0.022
0.765 0.015
0.775 0.010
0.785 0.007
0.795 0.005
0.805 0.003
0.815 0.002
0.825 0.001
0.835 0.001
0.845 0.001
0.855 0.000
0.865 0.000
0.875 0.000
0.885 0.000
0.895 0.000
0.905 0.000
0.915 0.000
0.925 0.000
0.935 0.000
0.945 0.000
0.955 0.000
0.965 0.000
0.975 0.000
0.985 0.000
0.995 0.000
1.005 0.000
1.015 0.000
1.025 0.000
1.035 0.000
1.045 0.000
1.055 0.000
1.065 0.000
1.075 0.000
JCEXI/DELER VS. EPSLON


X=E-1 Y=E-3
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000×10⁴
4.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
0.631 0.000
0.641 0.003
0.651 0.058
0.660 0.484
0.665 1.925
0.671 1.533
0.681 1.041
0.691 0.707
0.701 0.481
0.711 0.326
0.721 0.222
0.731 0.151
0.741 0.102
0.751 0.069
0.761 0.047
0.771 0.032
0.781 0.022
0.791 0.015
0.801 0.010
0.811 0.007
0.821 0.005
0.831 0.003
0.841 0.002
0.851 0.001
0.861 0.001
0.871 0.001
0.881 0.000
0.891 0.000
0.901 0.000
0.911 0.000
0.921 0.000
0.931 0.000
0.941 0.000
0.951 0.000
0.961 0.000
0.971 0.000
0.981 0.000
0.991 0.000
1.001 0.000
1.011 0.000
1.021 0.000
1.031 0.000
1.041 0.000
1.051 0.000
1.061 0.000
1.071 0.000
1.081 0.000
1.091 0.000
1.101 0.000
JCET)/DELET VS. EPST



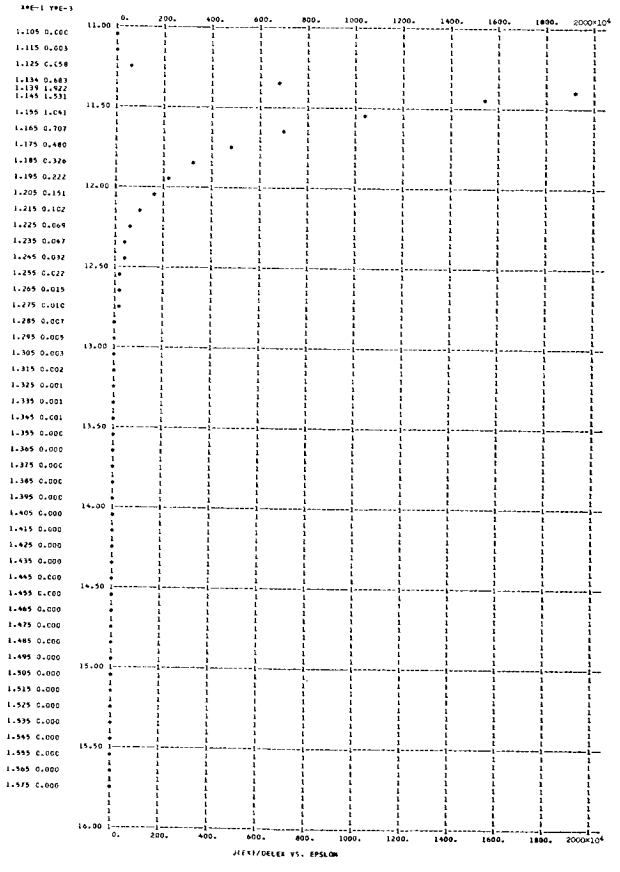


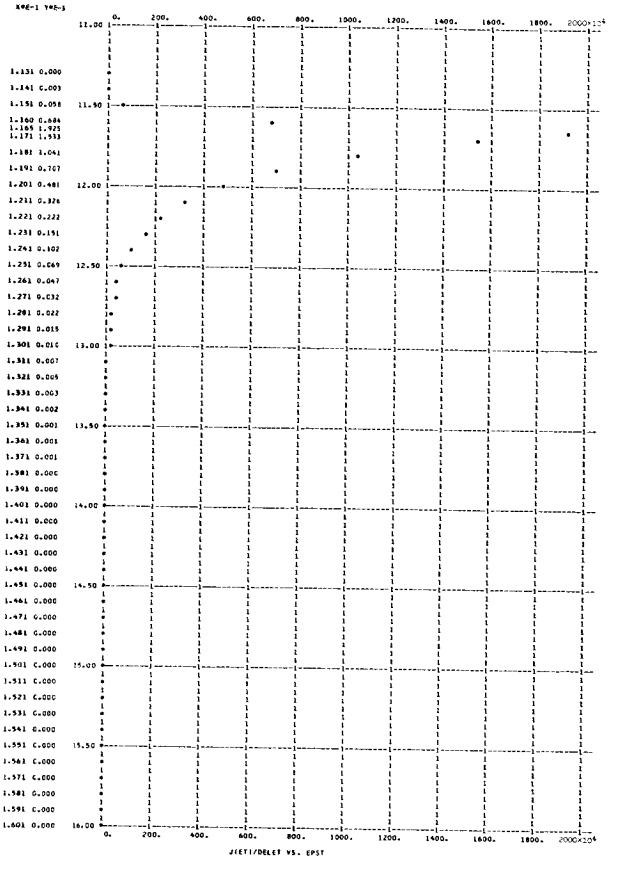
T - 0.30000000E 04 E = 0.31622783E 07 PHI = 2.00 AMU = 10.00 EVMAX = 11.3821

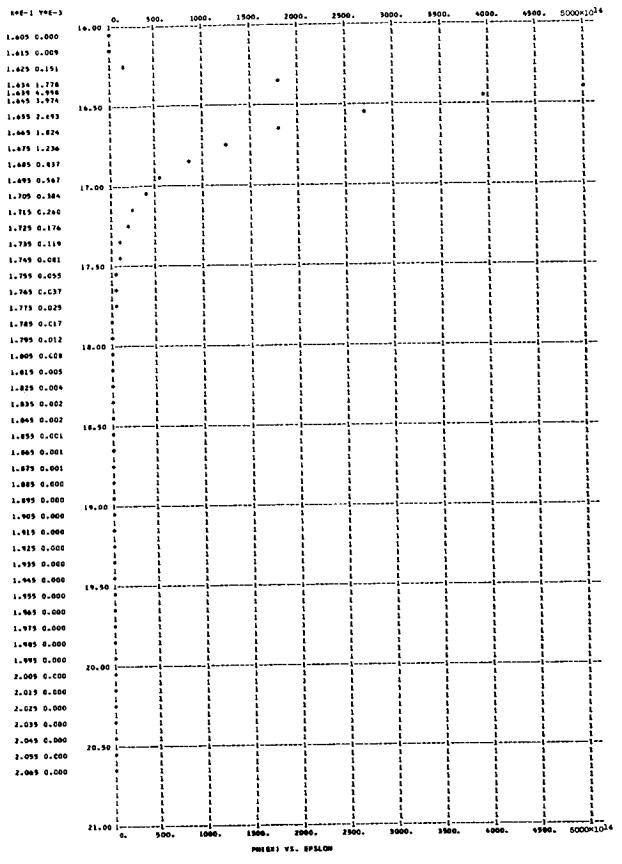
NEM = 0.14377540E 24 NEE = 0.17742881E 18 VXAV = 0.20204364E 09 KEXAV = 0.11607003E 02 KEXFL = 0.23456995E 10

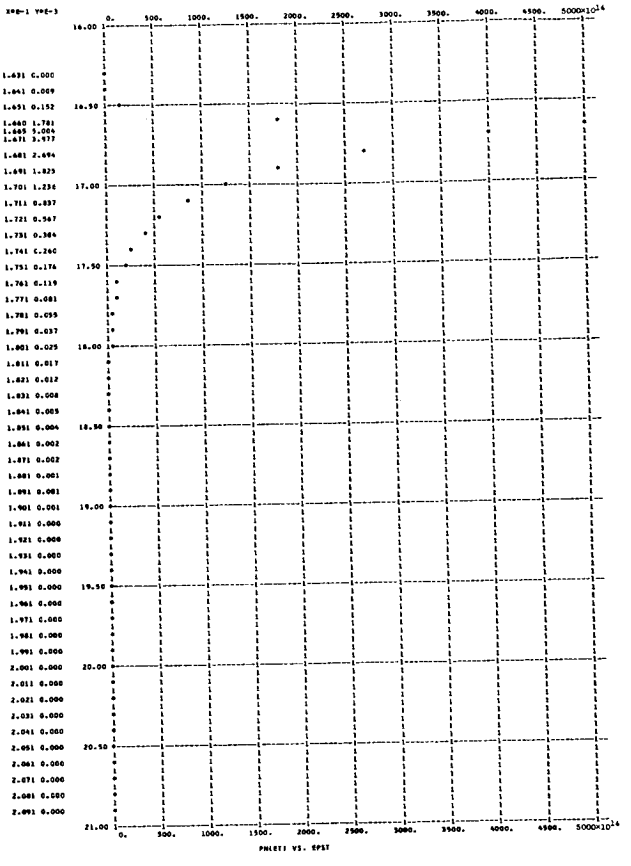
J = 0.574291E 07 KETAV= 0.118657E 02 KETFL= 0.239797E 10 TZERO = 0.917978E 05 TD = 0.201230E 04

Figure 3. - Continued.


X*E-1 Y*E-3
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000*10^4
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
J(EXT)/DELEX VS. EPSLON


X*E-1 Y*E-3
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000*10^4
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
J(EXT)/DELEX VS. EPST



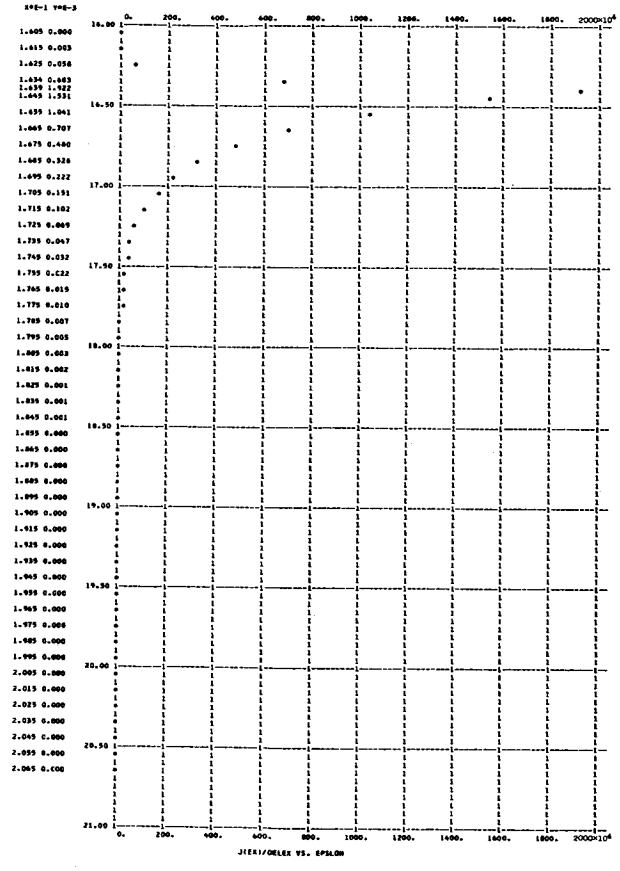


T = 0.30000000E 04 E = 0.31622783E 07 PHI = 2.00 AMU = 15.00 EVMAX = 16.3821

NEM = 0.26404823E 24 NEE = 0.14832457E 18 VXAV = 0.24168807E 09 KEXAV = 0.16607848E 02 KEXFL = 0.40144068E 10

J = 0.574289E 07 KETAV= 0.168665E 02 KETFL= 0.407693E 10 TZERO = 0.130486E 06 TD = 0.200905E 04

Figure 3. - Continued.


0.
200.
400.
600.
800.
1000.
1200.
1400.
1600.
1800.
2000X10⁴
16.00
16.50
17.00
17.50
18.00
18.50
19.00
19.50
20.00
20.50
21.00
1.605 0.000
1.615 0.003
1.625 0.058
1.634 0.663
1.639 1.922
1.645 1.531
1.655 1.041
1.665 0.707
1.675 0.480
1.685 0.326
1.695 0.222
1.705 0.151
1.715 0.102
1.725 0.069
1.735 0.047
1.745 0.032
1.755 0.022
1.765 0.015
1.775 0.010
1.785 0.007
1.795 0.005
1.805 0.003
1.815 0.002
1.825 0.001
1.835 0.001
1.845 0.001
1.855 0.000
1.865 0.000
1.875 0.000
1.885 0.000
1.895 0.000
1.905 0.000
1.915 0.000
1.925 0.000
1.935 0.000
1.945 0.000
1.955 0.000
1.965 0.000
1.975 0.000
1.985 0.000
1.995 0.000
2.005 0.000
2.015 0.000
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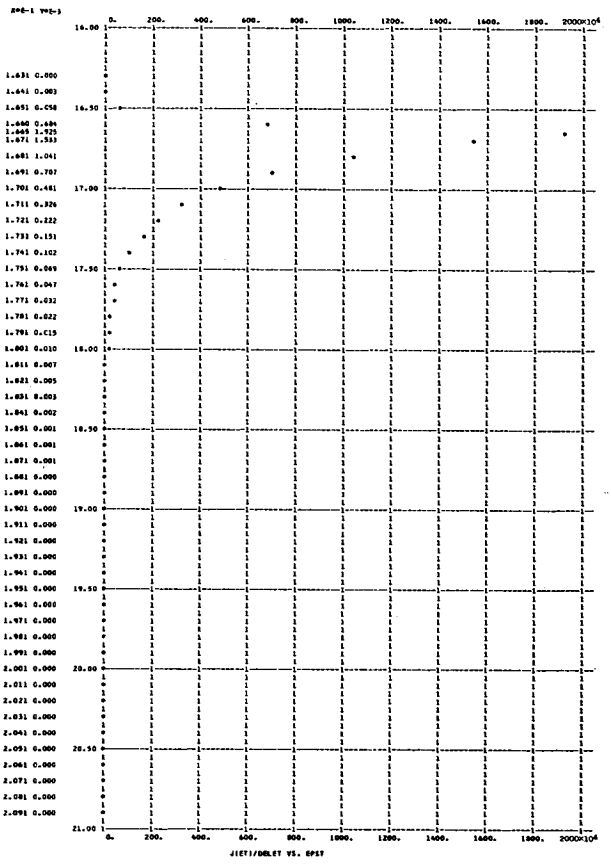
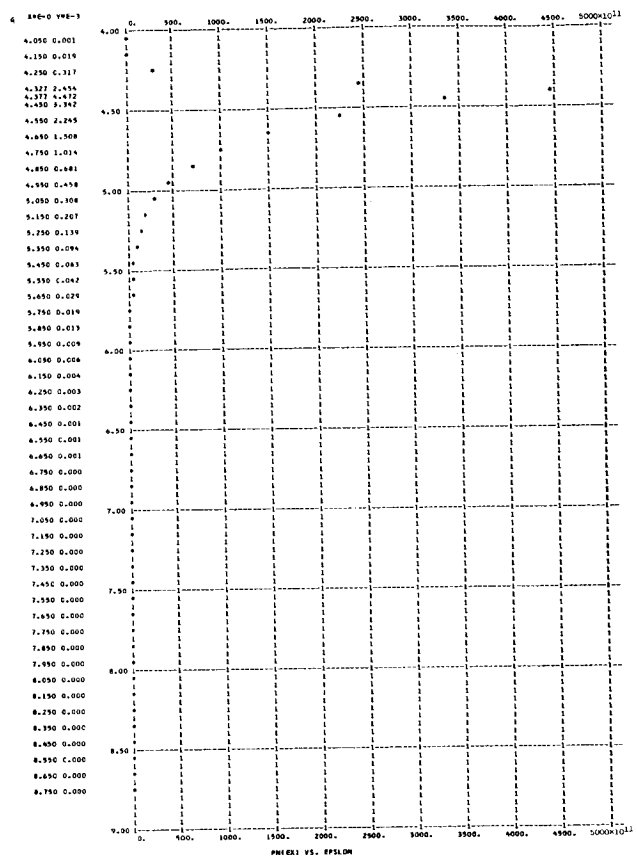
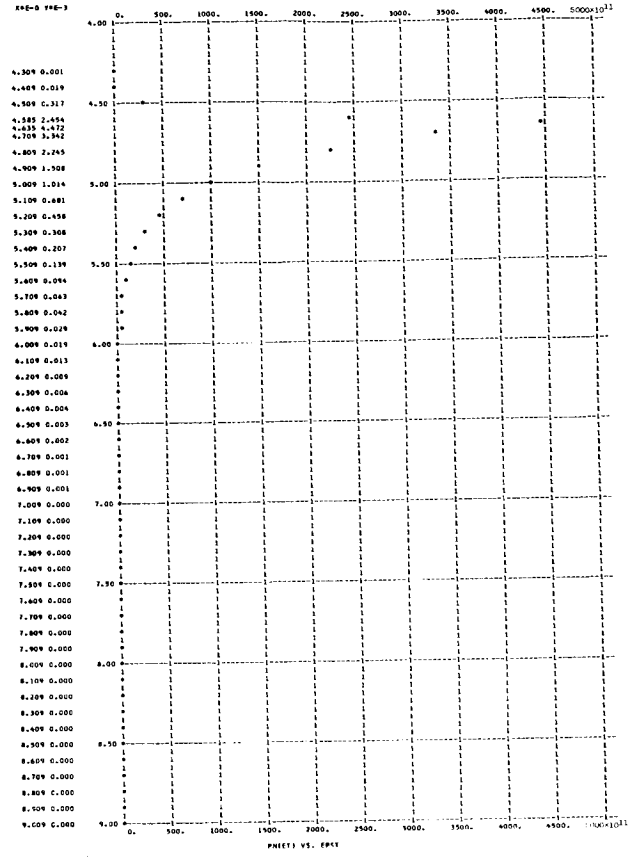
2.035 0.000
2.045 0.000
2.055 0.000
2.065 0.000
J(EX)/DELEX VS. EPSLON


0.
200.
400.
600.
800.
1000.
1200.
1400.
1600.
1800.
2000X10⁴
16.00
16.50
17.00
17.50
18.00
18.50
19.00
19.50
20.00
20.50
21.00
1.631 0.000
1.641 0.003
1.651 0.058
1.660 0.684
1.665 1.925
1.671 1.553
1.681 1.041
1.691 0.707
1.701 0.481
1.711 0.326
1.721 0.222
1.731 0.151
1.741 0.102
1.751 0.069
1.761 0.047
1.771 0.032
1.781 0.022
1.791 0.015
1.801 0.010
1.811 0.007
1.821 0.005
1.831 0.003
1.841 0.002
1.851 0.001
1.861 0.001
1.871 0.001
1.881 0.000
1.891 0.000
1.901 0.000
1.911 0.000
1.921 0.000
1.931 0.000
1.941 0.000
1.951 0.000
1.961 0.000
1.971 0.000
1.981 0.000
1.991 0.000
2.001 0.000
2.011 0.000
2.021 0.000
2.031 0.000
2.041 0.000
2.051 0.000
2.061 0.000
2.071 0.000
2.081 0.000
2.091 0.000
J(ET)/DELET VS. EPST



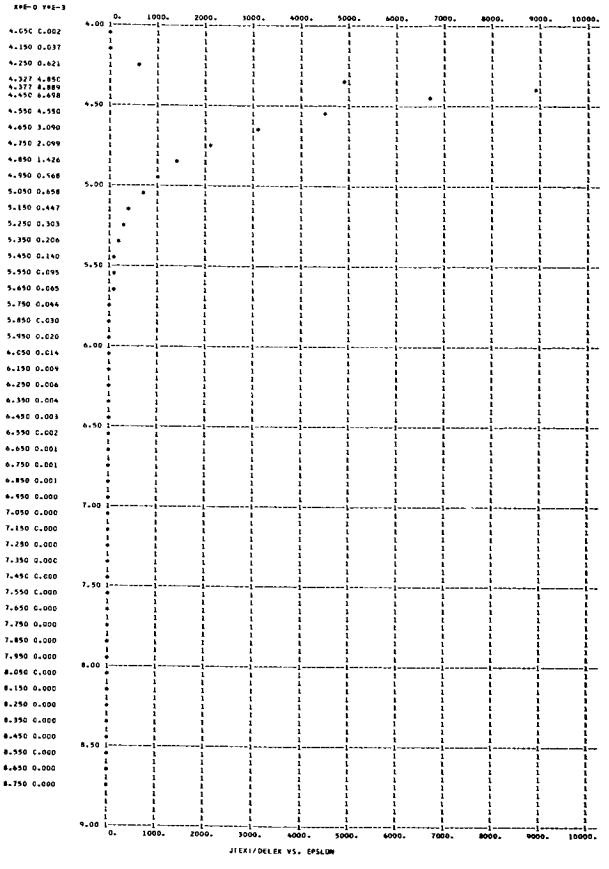


T = 0.30000000E 04 E = 0.31622783E 07 PHI = 4.00 AMU = 1.00 EVMAX = 4.3537

NEM = 0.49014194E 22 NEE = 0.13916378E 15 VXAV = 0.12677549E 09 KEXAV = 0.45726635E 01 KEXFL = 0.58058152E 09

J = 0.282634E 04 KETAV= 0.483118E 01 KETFL= 0.613355E 09 TZERO = 0.373760E 05 TD = 0.202620E 04

Figure 3. - Continued.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0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
4.00
4.50
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
4.050 0.002
4.150 0.037
4.250 0.621
4.327 4.850
4.377 8.889
4.450 8.698
4.550 4.550
4.650 3.090
4.750 2.099
4.850 1.426
4.950 0.968
5.050 0.658
5.150 0.447
5.250 0.303
5.350 0.206
5.450 0.140
5.550 0.095
5.650 0.065
5.750 0.044
5.850 0.030
5.950 0.020
6.050 0.014
6.150 0.009
6.250 0.006
6.350 0.004
6.450 0.003
6.550 0.002
6.650 0.001
6.750 0.001
6.850 0.001
6.950 0.000
7.050 0.000
7.150 0.000
7.250 0.000
7.350 0.000
7.450 0.000
7.550 0.000
7.650 0.000
7.750 0.000
7.850 0.000
7.950 0.000
8.050 0.000
8.150 0.000
8.250 0.000
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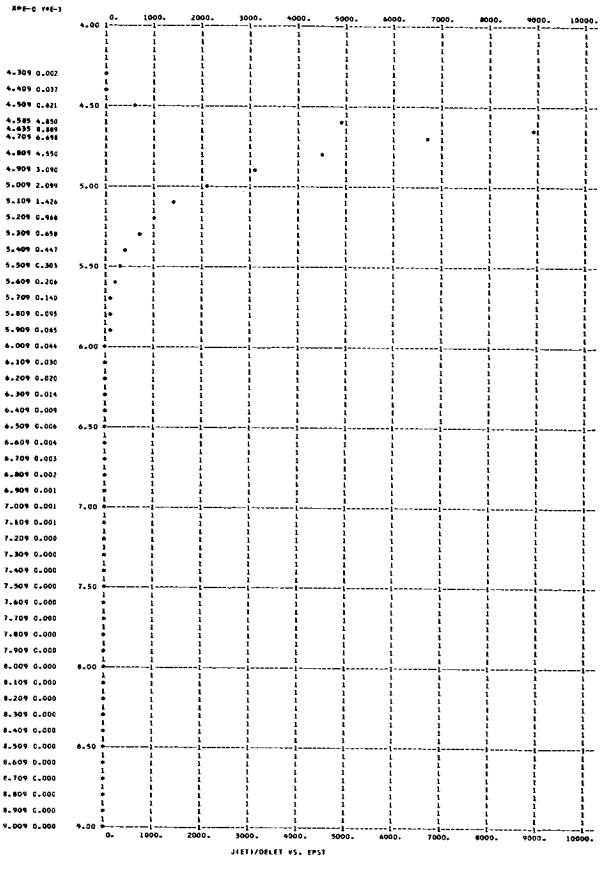
8.450 0.000
8.550 0.000
8.650 0.000
8.750 0.000
JTEXT/DELEX VS. EPSLON


X=E-0 Y=E-3
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
4.00
4.50
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
4.309 0.002
4.409 0.037
4.509 0.621
4.585 4.850
4.635 8.889
4.709 8.698
4.809 4.550
4.909 3.090
5.009 2.099
5.109 1.426
5.209 0.968
5.309 0.658
5.409 0.447
5.509 0.303
5.609 0.206
5.709 0.140
5.809 0.095
5.909 0.065
6.009 0.044
6.109 0.030
6.209 0.020
6.309 0.014
6.409 0.009
6.509 0.006
6.609 0.004
6.709 0.003
6.809 0.002
6.909 0.001
7.009 0.001
7.109 0.001
7.209 0.000
7.309 0.000
7.409 0.000
7.509 0.000
7.609 0.000
7.709 0.000
7.809 0.000
7.909 0.000
8.009 0.000
8.109 0.000
8.209 0.000
8.309 0.000
8.409 0.000
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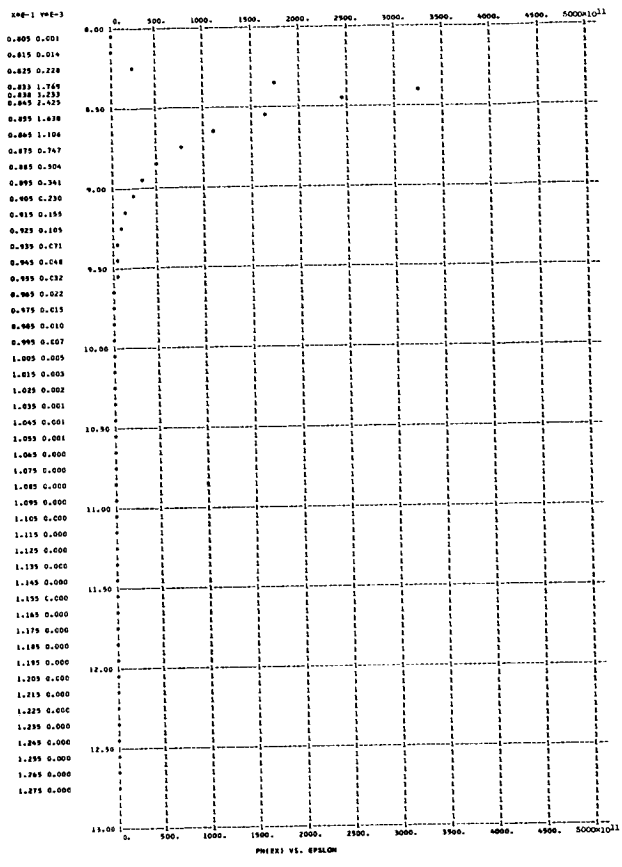
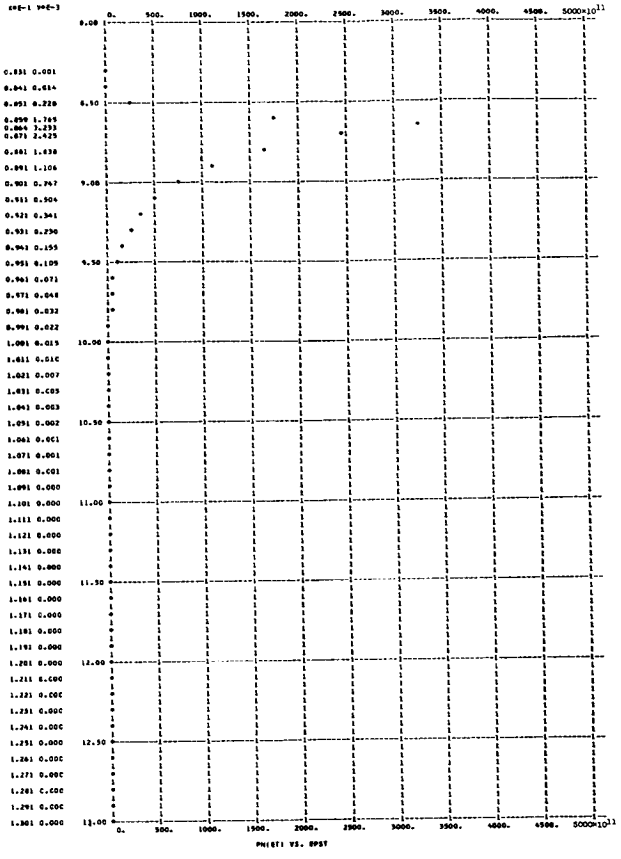
JTETI/DELET VS. EPST





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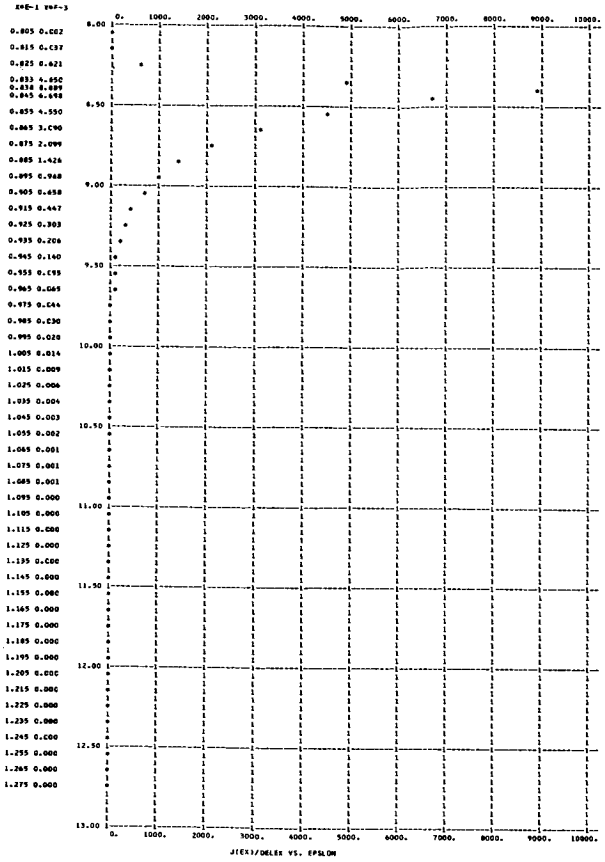
NEM = 0.50929833E 23 NEE = 0.10159146E 15 VXAV = 0.17366038E 09 KEXAV = 0.85757825E 01 KEXFL = 0.14899374E 10

J = 0.282631E 04 KETAV= 0.883430E 01 KETFL= 0.153483E 10 TZERO = 0.683457E 05 TD = 0.201456E 04

Figure 3. - Continued.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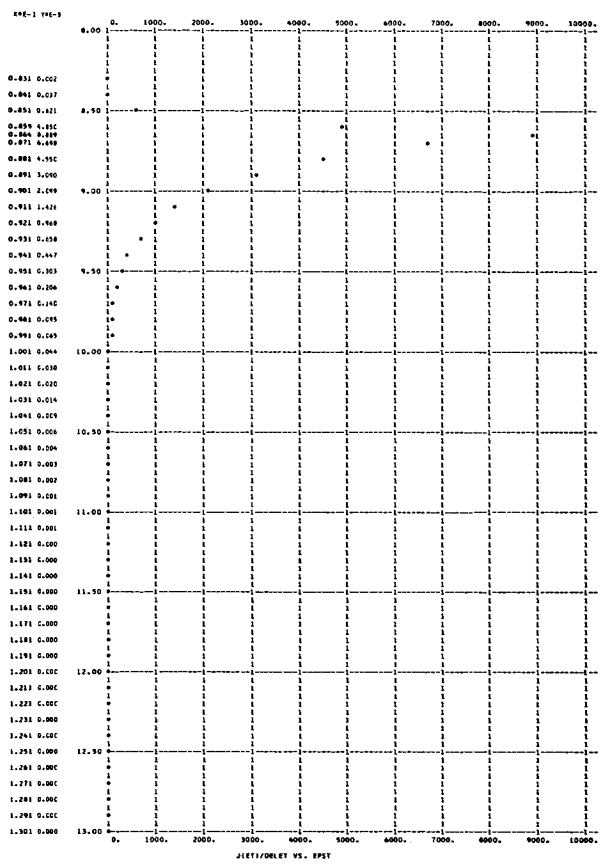
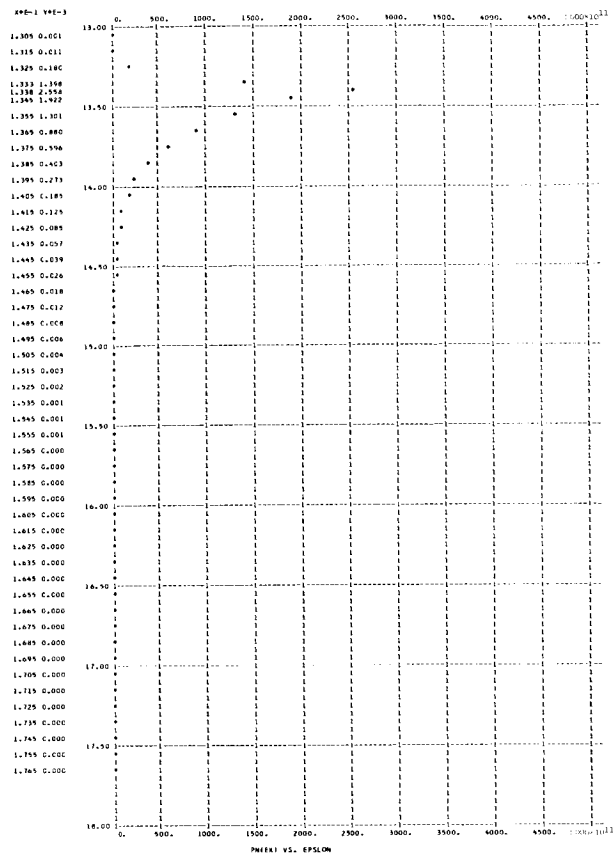
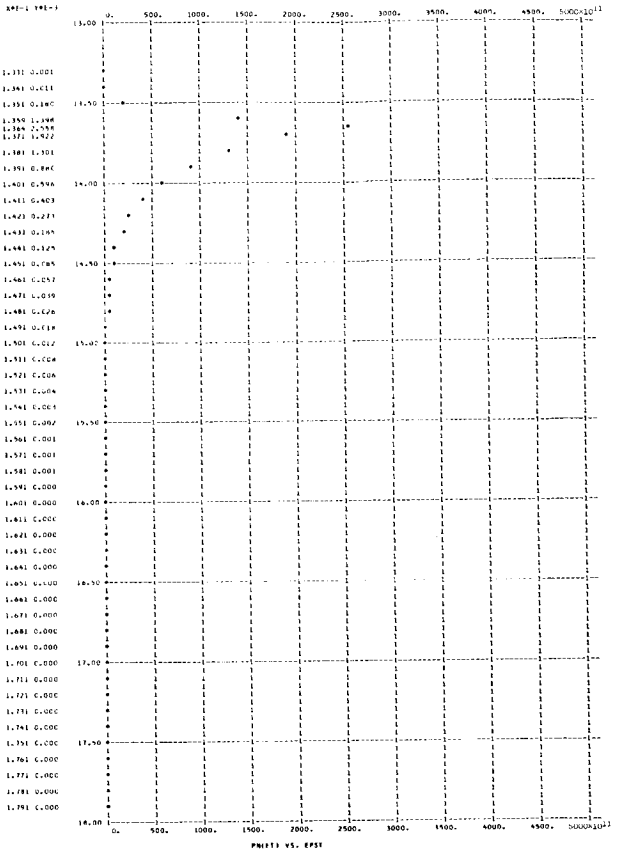
8.00
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
13.00
J(EX)/DELEX VS. EPSLON


0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
8.00
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
13.00
J(ET)/DELET VS. EPST



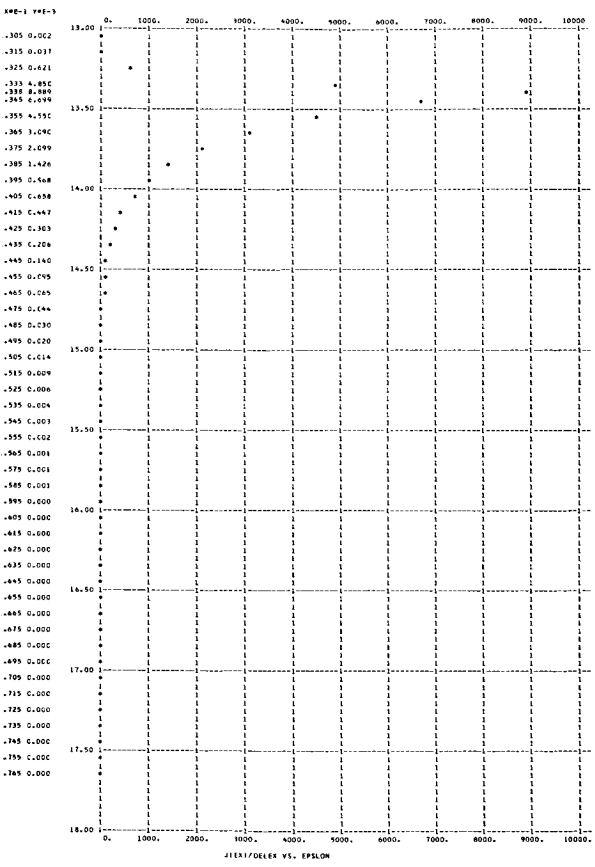


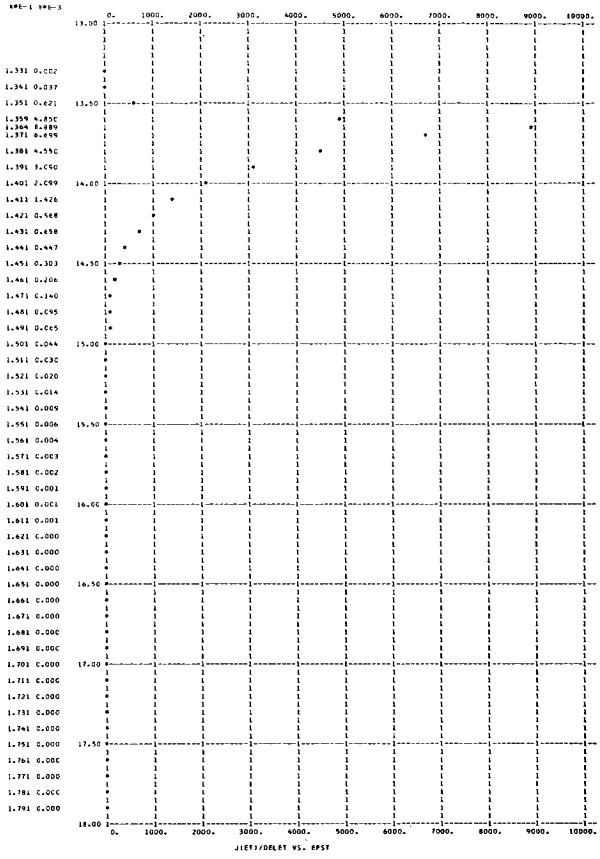
T = 0.30000000E 04 E = 0.31622783E 07 PHI = 4.00 AMU = 10.00 EVMAX = 13.3537

NEM = 0.14377540E 24 NEE = 0.80734659E 14 VXAV = 0.21852275E 09 KEXAV = 0.13577157E 02 KEXFL = 0.29674522E 10

J = 0.282631E 04 KETAV= 0.138357E 02 KETFL= 0.302394E 10 TZERO = 0.107038E 06 TD = 0.200933E 04

Figure 3. - Continued.


0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
13.00
13.50
14.00
14.50
15.00
15.50
16.00
16.50
17.00
17.50
18.00
JIEXI/DELEX VS. EPSLON


0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
13.00
13.50
14.00
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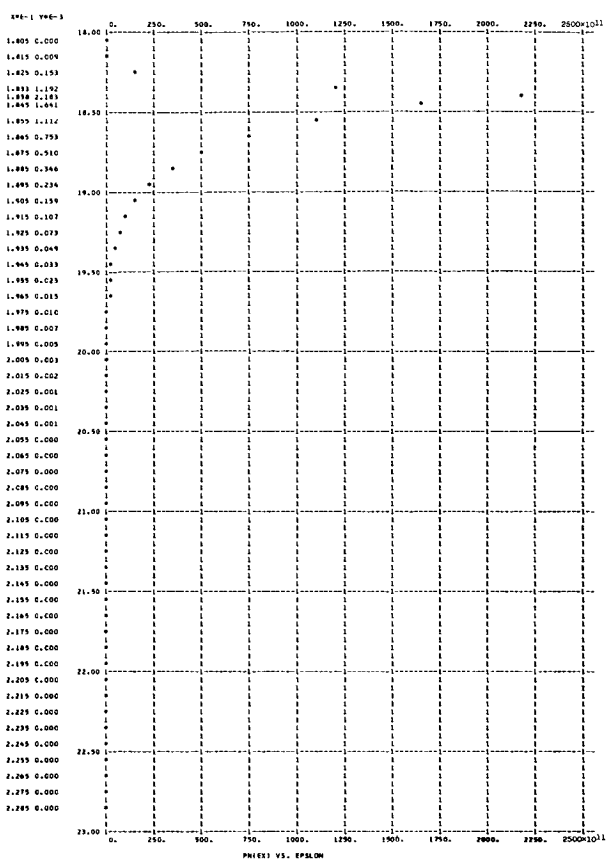
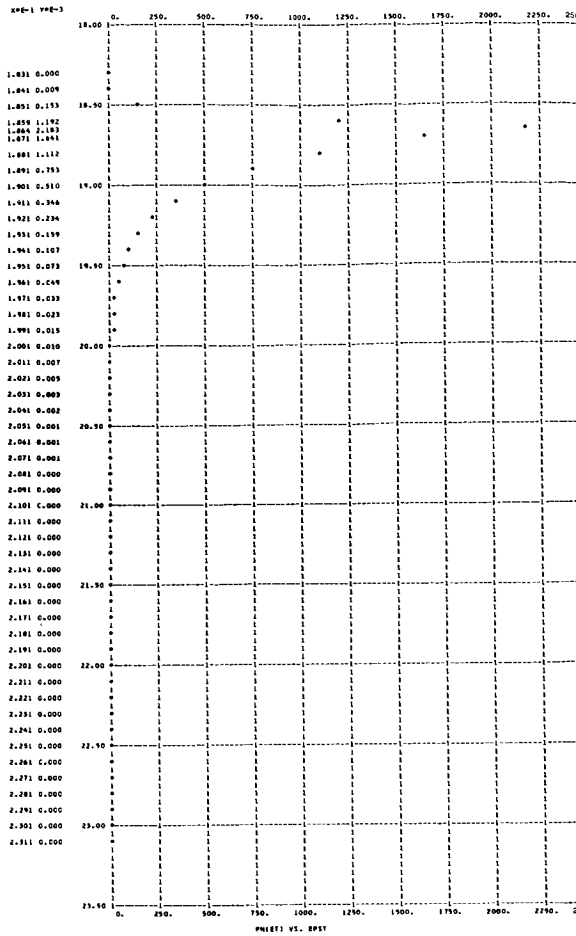
15.00
15.50
16.00
16.50
17.00
17.50
18.00
JIEYJ/DELEY VS. EPSY



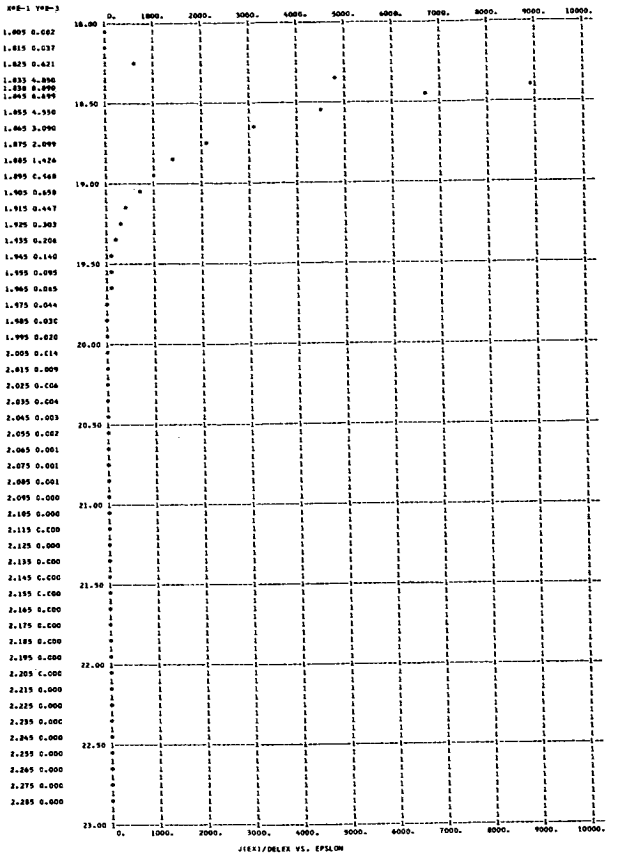


T = 0.30000000E 04 E = 0.31622783E 07 PHI = 4.00 AMU = 15.00 EVMAX = 18.3537

NEM = 0.26404823E 24 NEE = 0.69017276E 14 VXAV = 0.25562204E 09 KEXAV = 0.18577800E 02 KEXFL = 0.47493559E 10

J = 0.282630E 04 KETAV= 0.188363E 02 KETFL= 0.481544E 10 TZERO = 0.145725E 06 TD = 0.200689E 04

Figure 3. - Continued.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0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
18.00
18.50
19.00
19.50
20.00
20.50
21.00
21.50
22.00
22.50
23.00
1.805 0.002
1.815 0.037
1.825 0.421
1.833 4.856
1.838 8.890
1.845 6.695
1.855 4.550
1.865 3.090
1.875 2.099
1.885 1.426
1.895 0.968
1.905 0.658
1.915 0.447
1.925 0.303
1.935 0.206
1.945 0.140
1.955 0.095
1.965 0.065
1.975 0.044
1.985 0.030
1.995 0.020
2.005 0.014
2.015 0.009
2.025 0.006
2.035 0.004
2.045 0.003
2.055 0.002
2.065 0.001
2.075 0.001
2.085 0.001
2.095 0.000
2.105 0.000
2.115 0.000
2.125 0.000
2.135 0.000
2.145 0.000
2.155 0.000
2.165 0.000
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2.225 0.000
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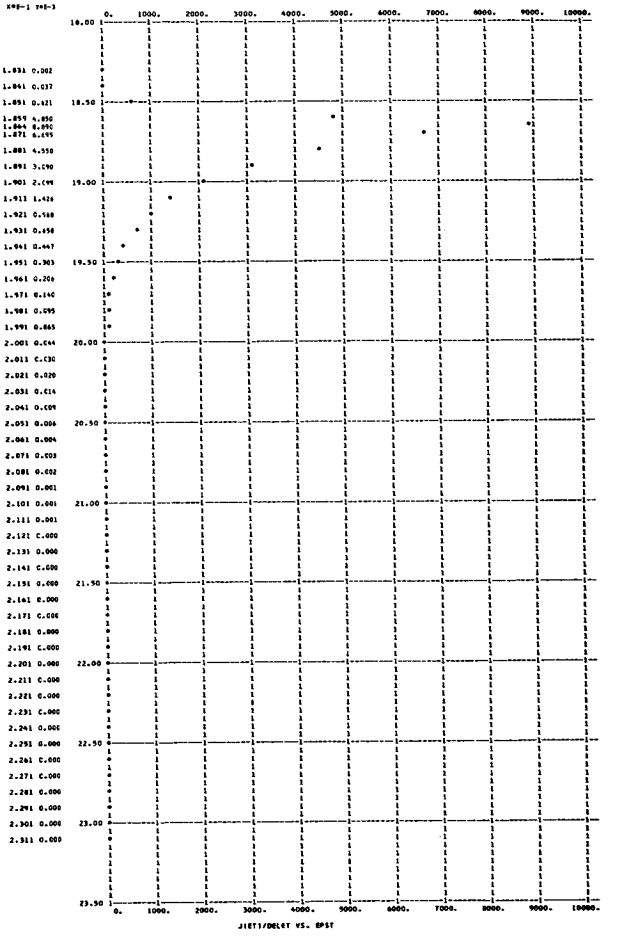
2.265 0.000
2.275 0.000
2.285 0.000
J(EX)/DELEX VS. EPSLON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0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000.
18.00
18.50
19.00
19.50
20.00
20.50
21.00
21.50
22.00
22.50
23.00
23.50
1.831 0.002
1.841 0.037
1.851 0.421
1.859 4.856
1.864 8.890
1.871 6.695
1.881 4.550
1.891 3.090
1.901 2.099
1.911 1.426
1.921 0.968
1.931 0.658
1.941 0.447
1.951 0.303
1.961 0.206
1.971 0.140
1.981 0.095
1.991 0.065
2.001 0.044
2.011 0.030
2.021 0.020
2.031 0.014
2.041 0.009
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2.061 0.004
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2.141 0.000
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2.161 0.000
2.171 0.000
2.181 0.000
2.191 0.000
2.201 0.000
2.211 0.000
2.221 0.000
2.231 0.000
2.241 0.000
2.251 0.000
2.261 0.000
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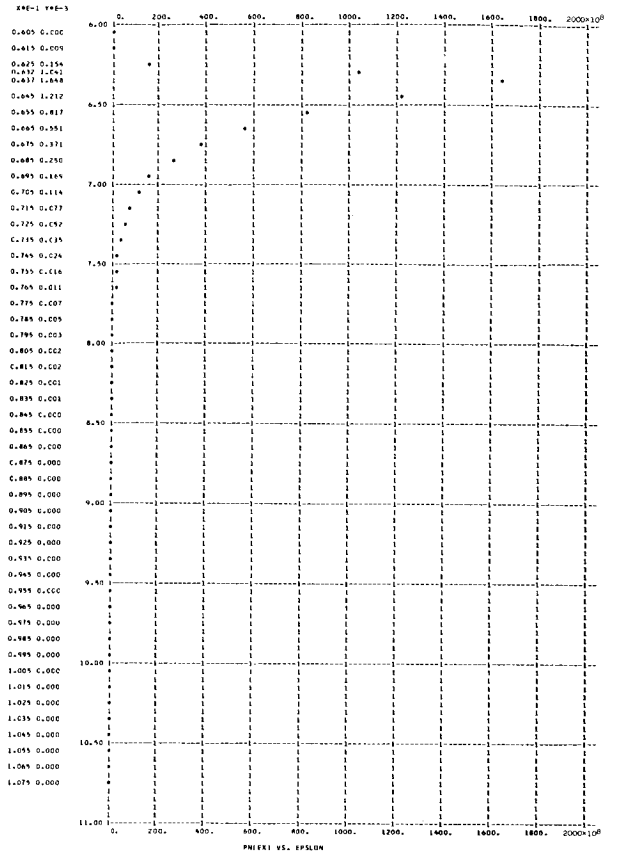
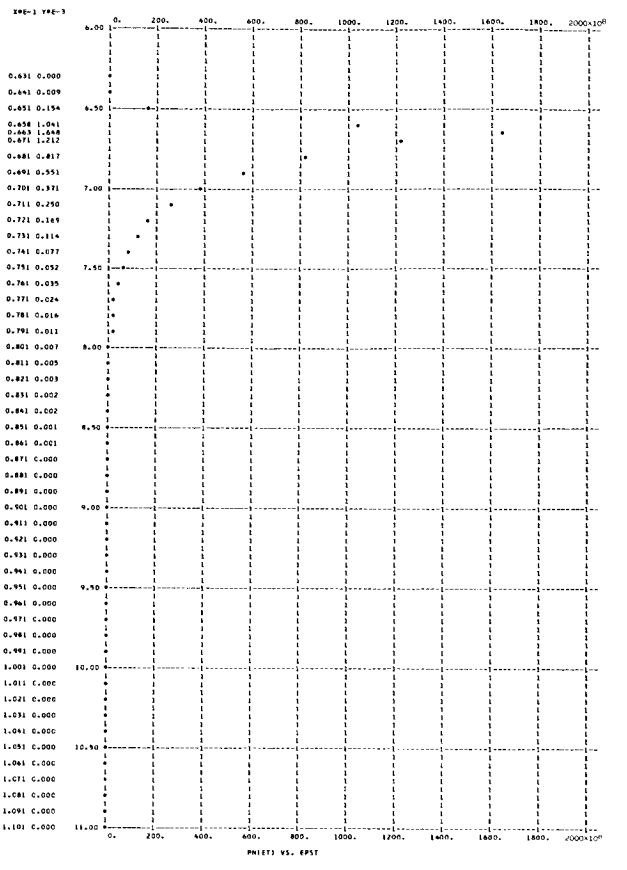
2.281 0.000
2.291 0.000
2.301 0.000
2.311 0.000
J(ET)/DELET VS. EPST



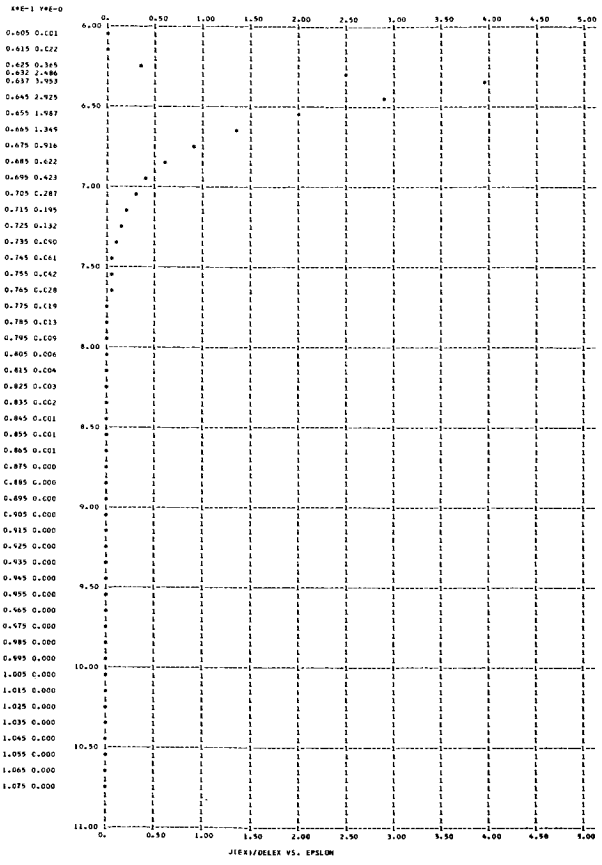


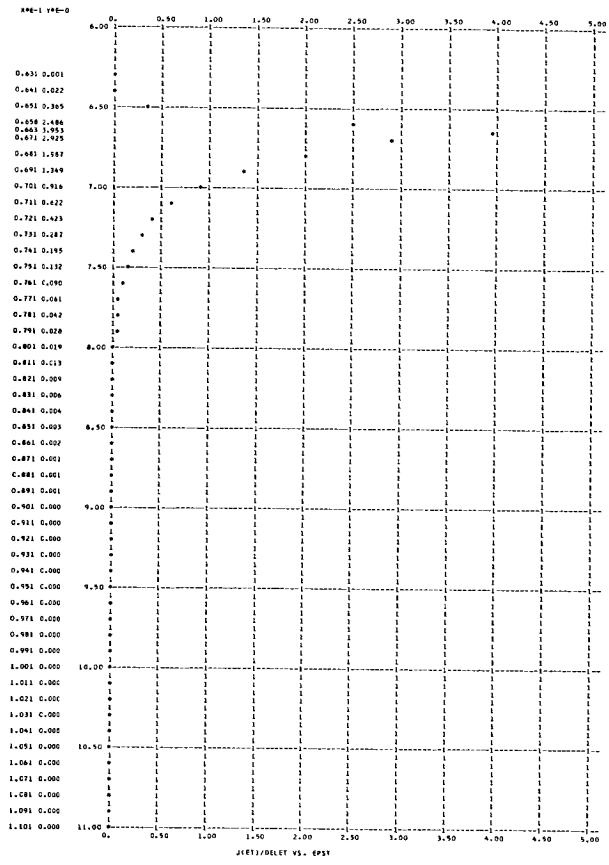
T = 0.30000000E 04 E = 0.31622783E 07 PHI = 6.00 AMU = 1.00 EVMAX = 6.3442

NEM = 0.49014194E 22 NEE = 0.52632653E 11 VXAV = 0.15193329E 09 KEXAV = 0.65651261E 01 KEXFL = 0.99821037E 09

J = 0.128106E 01 KETAV= 0.682364E 01 KETFL= 0.103749E 10 TZERO = 0.527904E 05 TD = 0.201874E 04

Figure 3. - Continued.


X*E-1 Y*E-0
0.605 0.001
0.615 0.022
0.625 0.365
0.632 2.486
0.637 3.953
0.645 2.925
0.655 1.587
0.665 1.349
0.675 0.916
0.685 0.622
0.695 0.423
0.705 0.287
0.715 0.195
0.725 0.132
0.735 0.090
0.745 0.061
0.755 0.042
0.765 0.028
0.775 0.019
0.785 0.013
0.795 0.009
0.805 0.006
0.815 0.004
0.825 0.003
0.835 0.002
0.845 0.001
0.855 0.001
0.865 0.001
0.875 0.000
0.885 0.000
0.895 0.000
0.905 0.000
0.915 0.000
0.925 0.000
0.935 0.000
0.945 0.000
0.955 0.000
0.965 0.000
0.975 0.000
0.985 0.000
0.995 0.000
1.005 0.000
1.015 0.000
1.025 0.000
1.035 0.000
1.045 0.000
1.055 0.000
1.065 0.000
1.075 0.000
0.
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.50
10.00
10.50
11.00
J(EX)/DELEX VS. EPSLON


X*E-1 Y*E-0
0.631 0.001
0.641 0.022
0.651 0.365
0.658 2.486
0.663 3.953
0.671 2.925
0.681 1.587
0.691 1.349
0.701 0.916
0.711 0.622
0.721 0.423
0.731 0.287
0.741 0.195
0.751 0.132
0.761 0.090
0.771 0.061
0.781 0.042
0.791 0.028
0.801 0.019
0.811 0.013
0.821 0.009
0.831 0.006
0.841 0.004
0.851 0.003
0.861 0.002
0.871 0.001
0.881 0.001
0.891 0.001
0.901 0.000
0.911 0.000
0.921 0.000
0.931 0.000
0.941 0.000
0.951 0.000
0.961 0.000
0.971 0.000
0.981 0.000
0.991 0.000
1.001 0.000
1.011 0.000
1.021 0.000
1.031 0.000
1.041 0.000
1.051 0.000
1.061 0.000
1.071 0.000
1.081 0.000
1.091 0.000
1.101 0.000
0.
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
6.00
6.50
7.00
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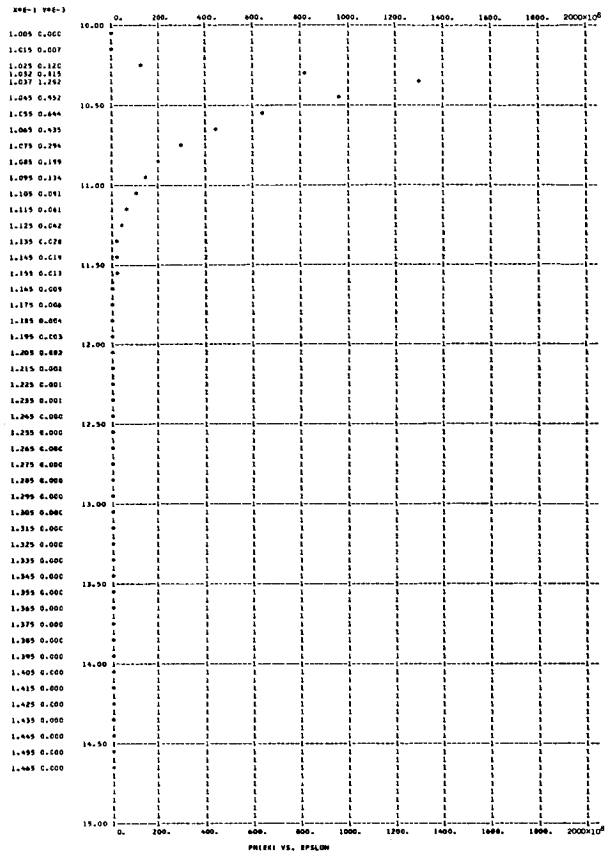
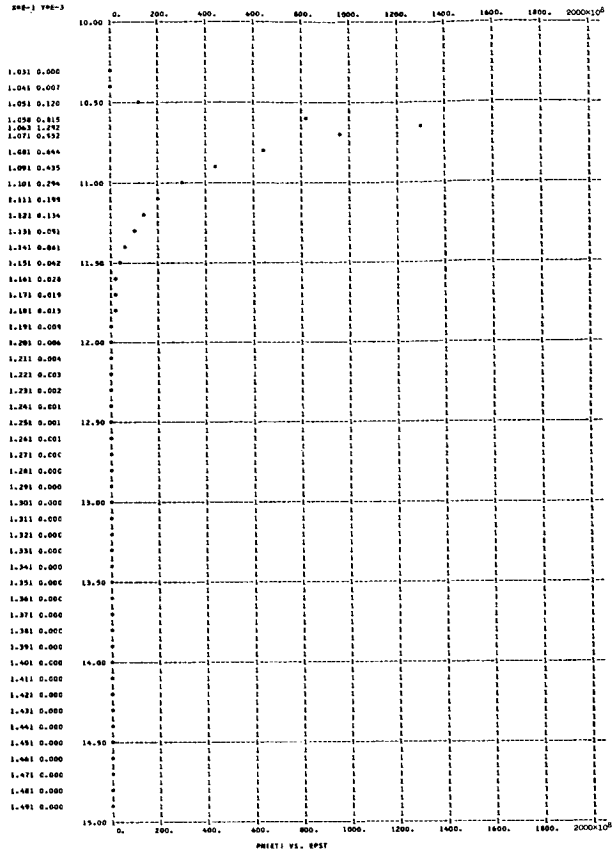
10.50
11.00
J(ET)/DELET VS. EPSY



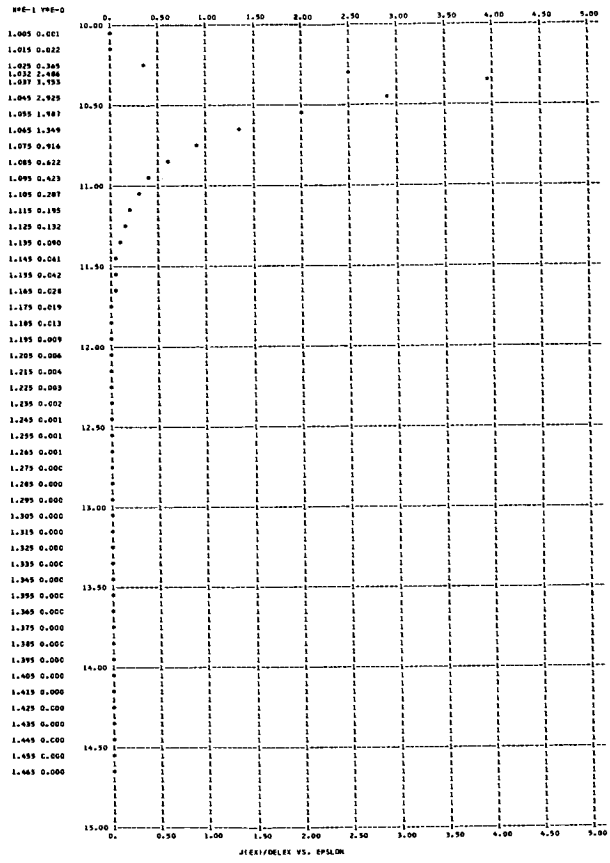


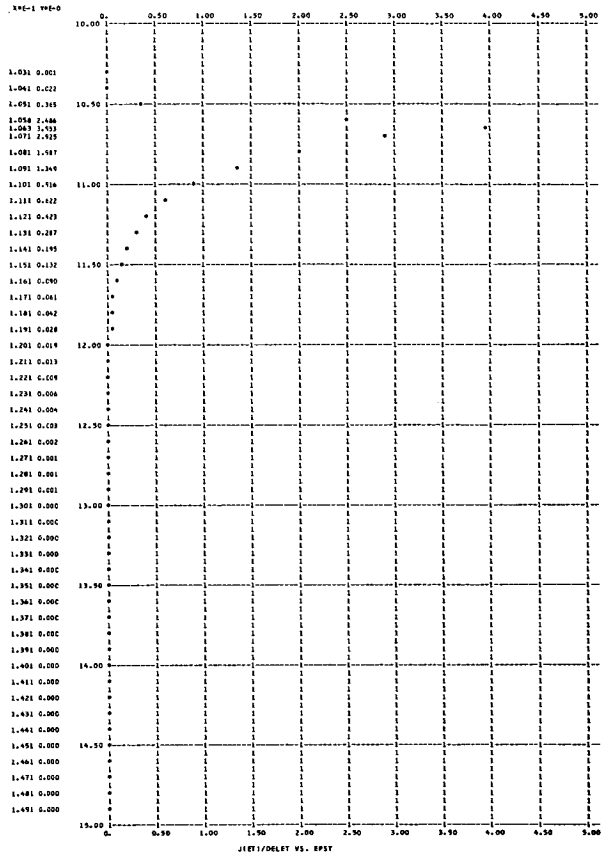
T = 0.30000000E 04 E = 0.31622783E 07 PHI = 6.00 AMU = 5.00 EVMAX = 10.3442

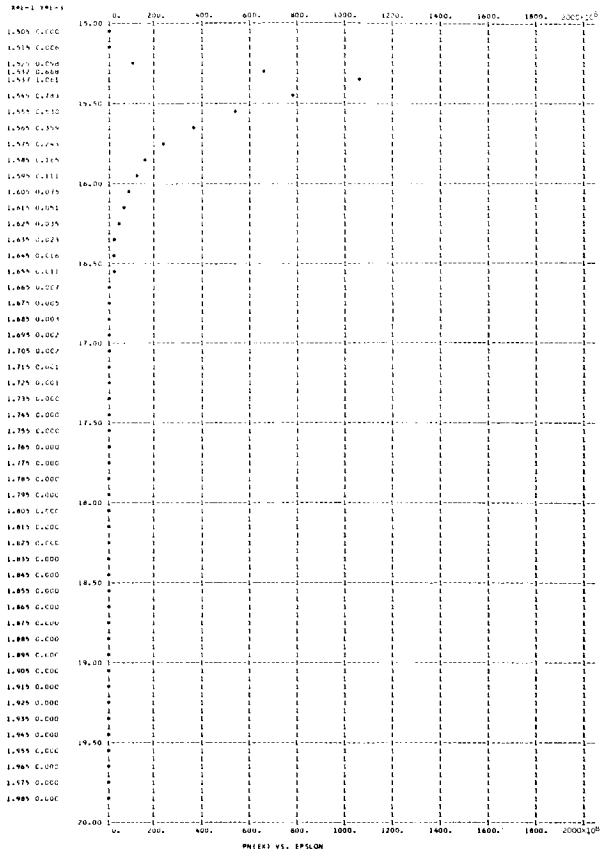
NEM = 0.50929833E 23 NEE = 0.41481293E 11 VXAV = 0.19277664E 09 KEXAV = 0.10566934E 02 KEXFL = 0.20376600E 10

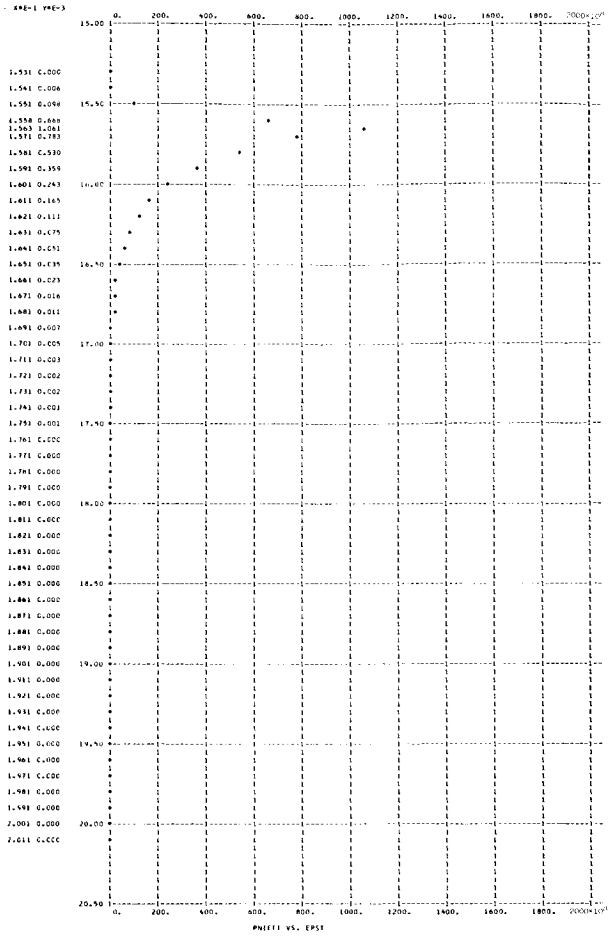
J = 0.128106E 01 KETAV= 0.108254E 02 KETFL= 0.208750E 10 TZERO = 0.837500E 05 TD = 0.201191E 04

Figure 3. - Continued.


X=E-1 Y=E-0
0. 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00
10.00
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
1.005 0.001
1.015 0.022
1.025 0.365
1.032 2.486
1.037 3.953
1.045 2.925
1.055 1.587
1.065 1.349
1.075 0.916
1.085 0.622
1.095 0.423
1.105 0.287
1.115 0.195
1.125 0.132
1.135 0.090
1.145 0.061
1.155 0.042
1.165 0.028
1.175 0.019
1.185 0.013
1.195 0.009
1.205 0.006
1.215 0.004
1.225 0.003
1.235 0.002
1.245 0.001
1.255 0.001
1.265 0.001
1.275 0.000
1.285 0.000
1.295 0.000
1.305 0.000
1.315 0.000
1.325 0.000
1.335 0.000
1.345 0.000
1.355 0.000
1.365 0.000
1.375 0.000
1.385 0.000
1.395 0.000
1.405 0.000
1.415 0.000
1.425 0.000
1.435 0.000
1.445 0.000
1.455 0.000
1.465 0.000
J(EXI/DELEX VS. EPSLON


X=E-1 Y=E-0
0. 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00
10.00
10.50
11.00
11.50
12.00
12.50
13.00
13.50
14.00
14.50
15.00
1.031 0.001
1.041 0.022
1.051 0.365
1.058 2.486
1.063 3.953
1.071 2.925
1.081 1.587
1.091 1.349
1.101 0.916
1.111 0.622
1.121 0.423
1.131 0.287
1.141 0.195
1.151 0.132
1.161 0.090
1.171 0.061
1.181 0.042
1.191 0.028
1.201 0.019
1.211 0.013
1.221 0.009
1.231 0.006
1.241 0.004
1.251 0.003
1.261 0.002
1.271 0.001
1.281 0.001
1.291 0.001
1.301 0.000
1.311 0.000
1.321 0.000
1.331 0.000
1.341 0.000
1.351 0.000
1.361 0.000
1.371 0.000
1.381 0.000
1.391 0.000
1.401 0.000
1.411 0.000
1.421 0.000
1.431 0.000
1.441 0.000
1.451 0.000
1.461 0.000
1.471 0.000
1.481 0.000
1.491 0.000
J(ET1/DELET VS. EPST



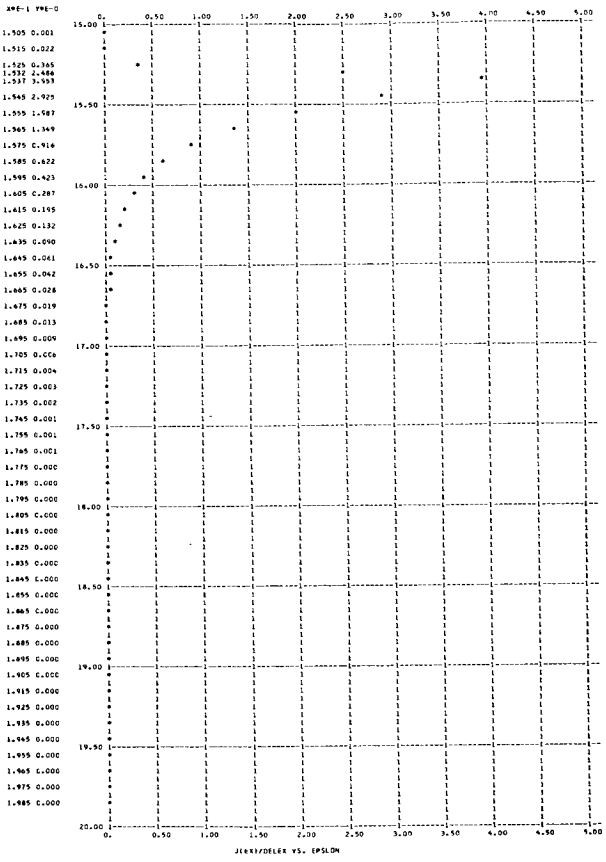


T = 0.30000000E 04 E = 0.31622783E 07 PHI = 6.00 AMU = 10.00 EVMAX = 15.3442

NEM = 0.14377540E 24 NEE = 0.34173859E 11 VXAV = 0.23399792E 09 KEXAV = 0.15567914E 02 KEXFL = 0.36433607E 10

J = 0.128106E 01 KETAV= 0.158264E 02 KETFL= 0.370385E 10 TZERO = 0.122440E 06 TD = 0.200820E 04

Figure 3. - Continued.


XPE-1 YPE-0
1.505 0.001
1.515 0.022
1.525 0.365
1.532 2.486
1.537 3.553
1.548 2.925
1.555 1.587
1.565 1.349
1.575 0.916
1.585 0.622
1.595 0.423
1.605 0.287
1.615 0.195
1.625 0.132
1.635 0.090
1.645 0.061
1.655 0.042
1.665 0.028
1.675 0.019
1.685 0.013
1.695 0.009
1.705 0.006
1.715 0.004
1.725 0.003
1.735 0.002
1.745 0.001
1.755 0.001
1.765 0.001
1.775 0.000
1.785 0.000
1.795 0.000
1.805 0.000
1.815 0.000
1.825 0.000
1.835 0.000
1.845 0.000
1.855 0.000
1.865 0.000
1.875 0.000
1.885 0.000
1.895 0.000
1.905 0.000
1.915 0.000
1.925 0.000
1.935 0.000
1.945 0.000
1.955 0.000
1.965 0.000
1.975 0.000
1.985 0.000
0.
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
15.00
15.50
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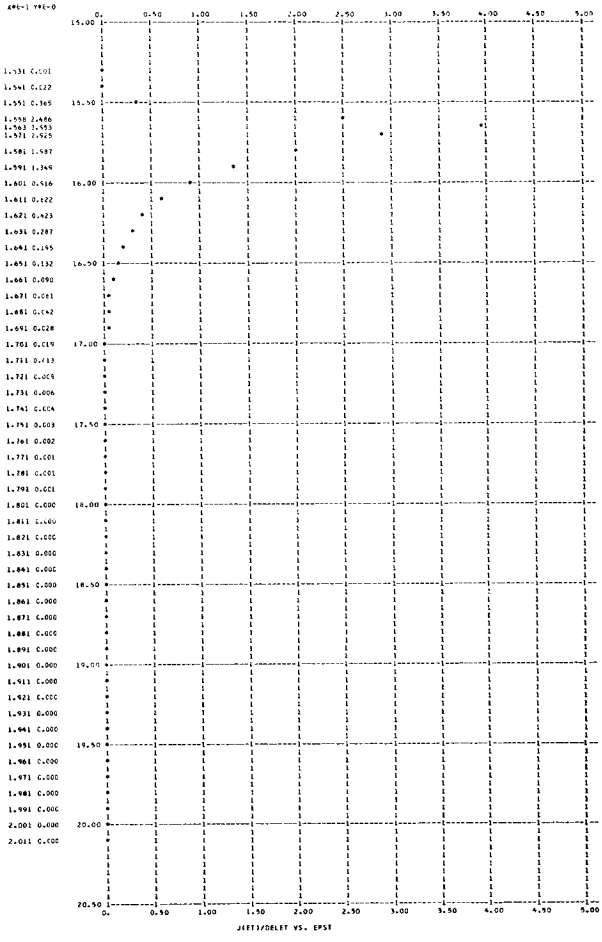
19.00
19.50
20.00
JERR1/DELER VS. EPSLON


XPE-1 YPE-0
1.531 0.101
1.541 0.222
1.551 0.365
1.558 2.486
1.563 3.553
1.571 2.925
1.581 1.587
1.591 1.349
1.601 0.916
1.611 0.622
1.621 0.423
1.631 0.287
1.641 0.195
1.651 0.132
1.661 0.090
1.671 0.061
1.681 0.042
1.691 0.028
1.701 0.019
1.711 0.013
1.721 0.009
1.731 0.006
1.741 0.004
1.751 0.003
1.761 0.002
1.771 0.001
1.781 0.001
1.791 0.001
1.801 0.000
1.811 0.000
1.821 0.000
1.831 0.000
1.841 0.000
1.851 0.000
1.861 0.000
1.871 0.000
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1.901 0.000
1.911 0.000
1.921 0.000
1.931 0.000
1.941 0.000
1.951 0.000
1.961 0.000
1.971 0.000
1.981 0.000
1.991 0.000
2.001 0.000
2.011 0.000
0.
0.50
1.00
1.50
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16.00
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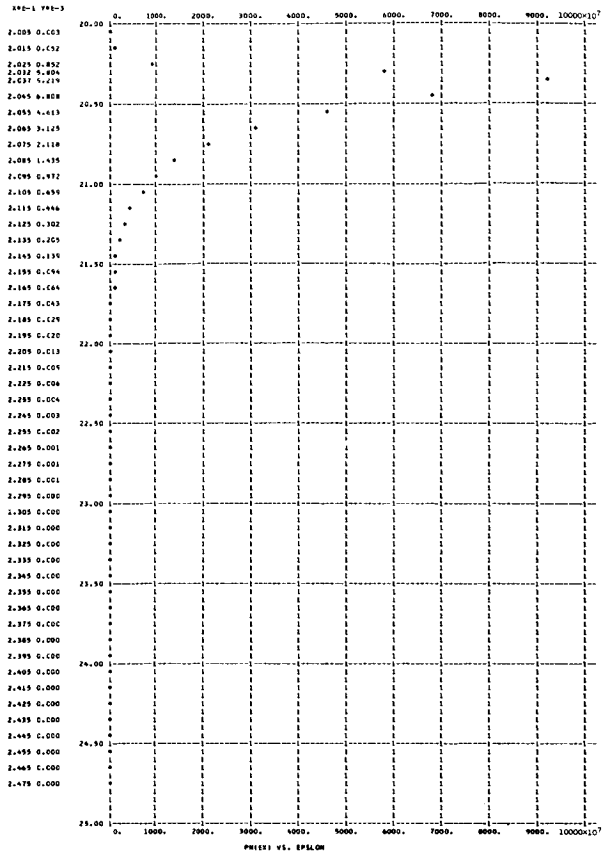
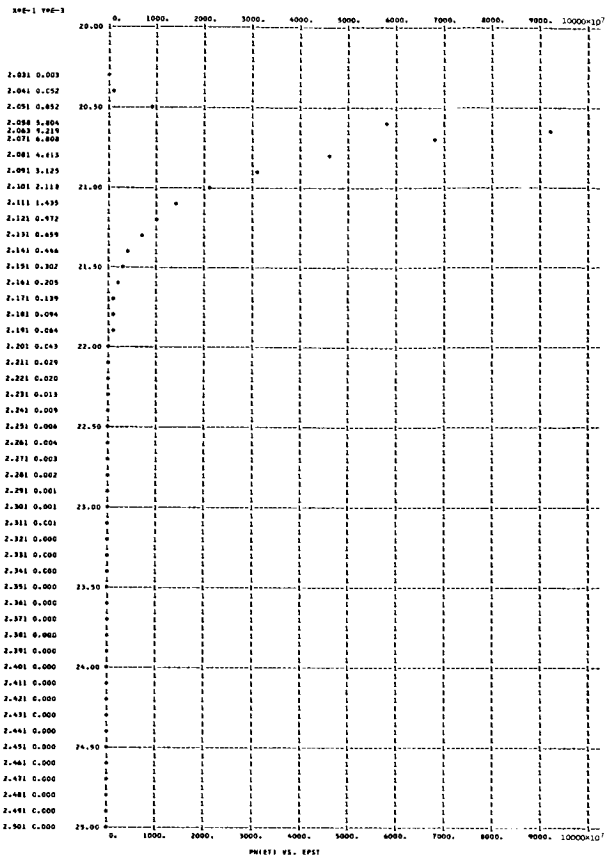
19.00
19.50
20.00
20.50
JEET1/DELET VS. EPST





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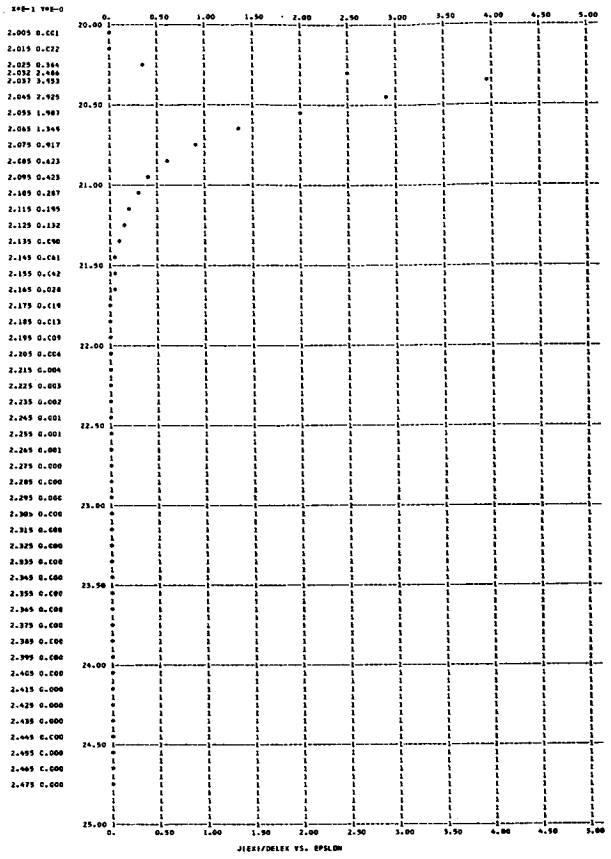
NEM = 0.26404823E 24 NEE = 0.29730508E 11 VXAV = 0.26896982E 09 KEXAV = 0.20568424E 02 KEXFL = 0.55327245E 10

J = 0.128106E 01 KETAV= 0.208269E 02 KETFL= 0.560226E 10 TZERO = 0.161126E 06 TD = 0.200626E 04

Figure 3. - Continued.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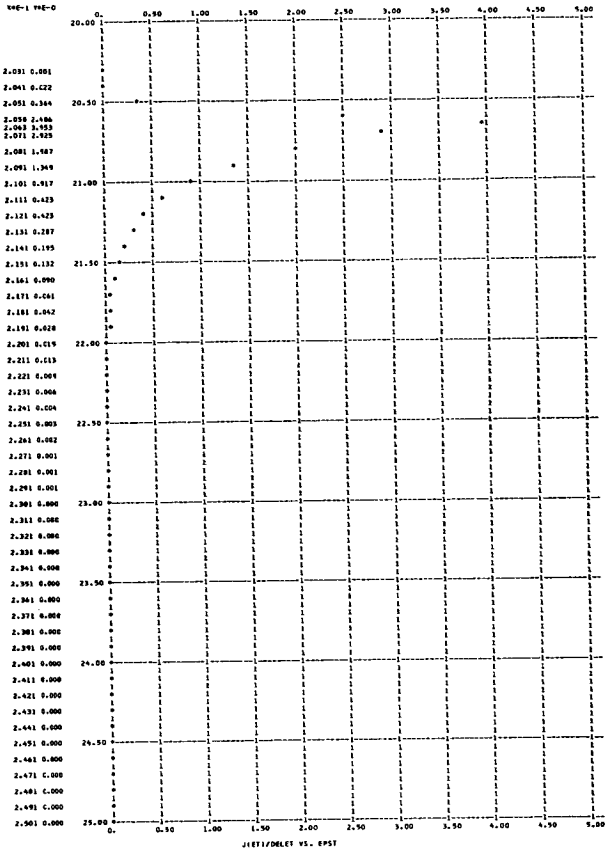
23.50
24.00
24.50
25.00
JIERI/DELEK VS. EPSLON


0.
0.50
1.00
1.50
2.00
2.50
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3.50
4.00
4.50
5.00
20.00
20.50
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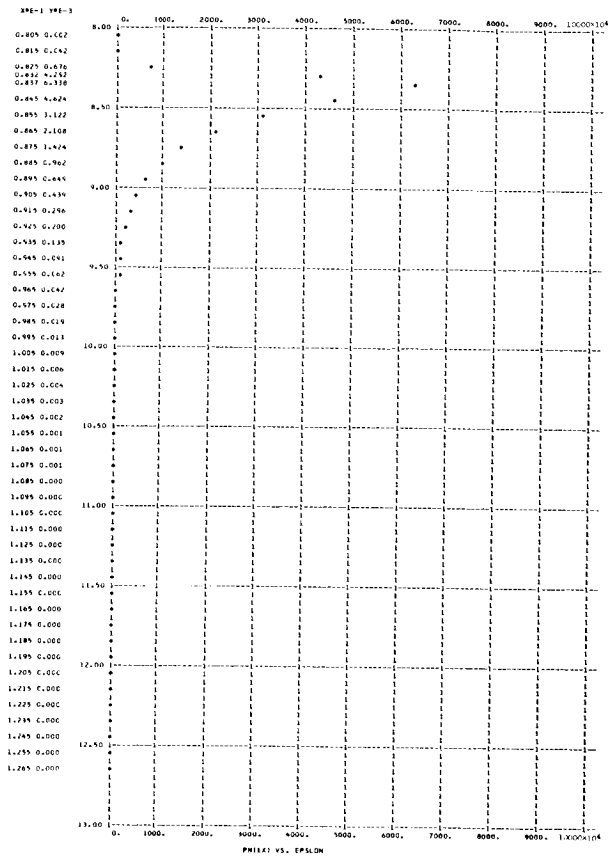
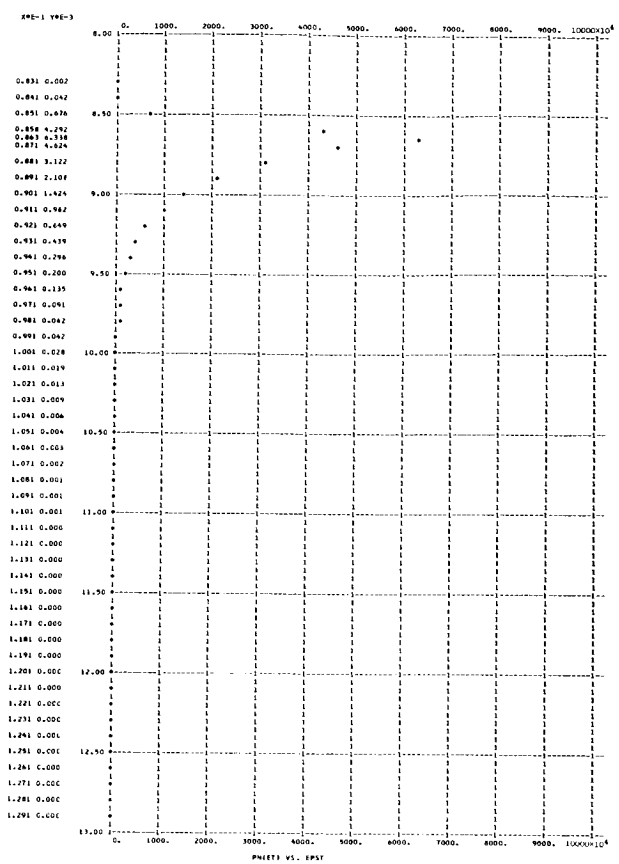
21.50
22.00
22.50
23.00
23.50
24.00
24.50
25.00
JIEYI/DELET VS. EPST



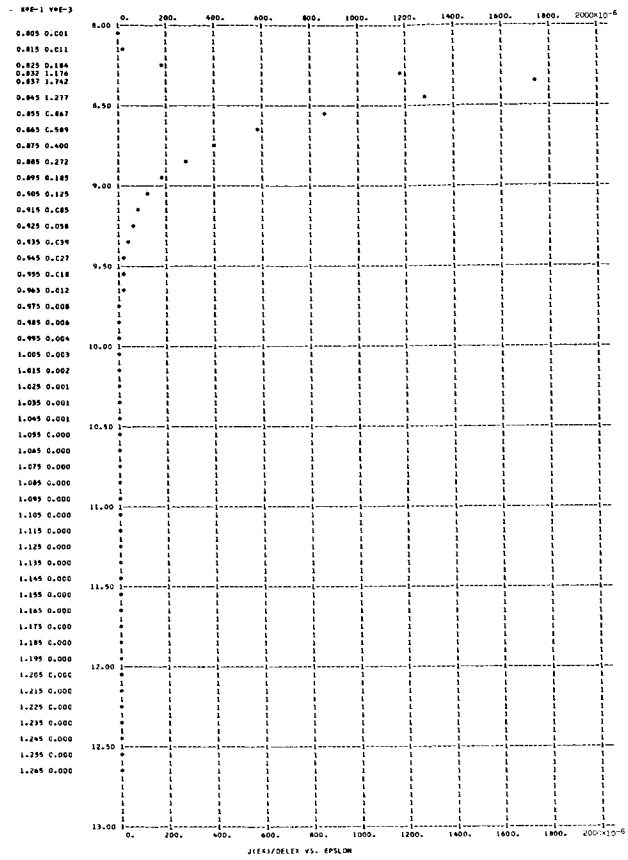


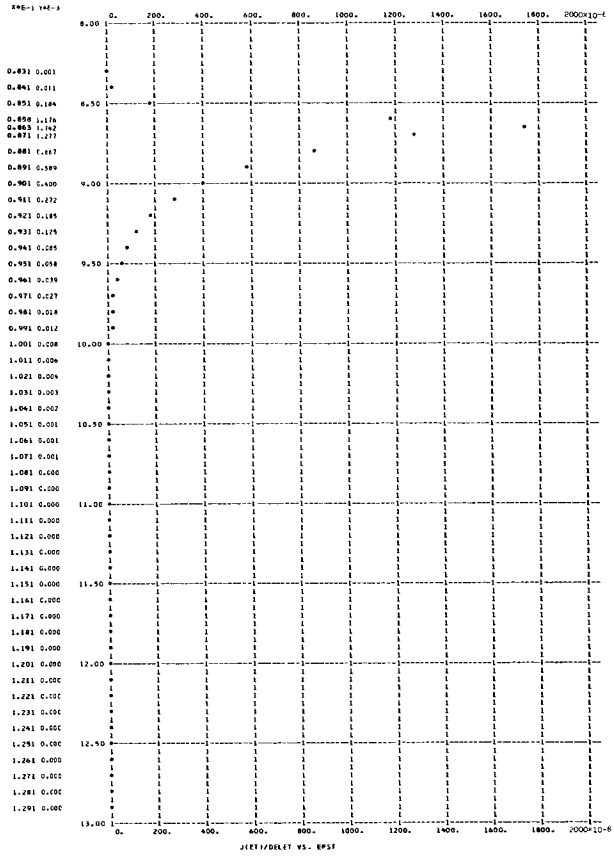
T = 0.30000000E 04 E = 0.31622783E 07 PHI = 8.00 AMU = 1.00 EVMAX = 8.3395

NEM = 0.49014194E 22 NEE = 0.20492258E 08 VXAV = 0.17351629E 09 KEXAV = 0.85615609E 01 KEXFL = 0.14862337E 10

J = 0.569630E-03 KETAV= 0.882008E 01 KETFL= 0.153109E 10 TZERO = 0.682357E 05 TD = 0.201457E 04

Figure 3. - Continued.


0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000x10-6
8.00
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
13.00
J(EK)/DELEK VS. EPSLON


0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000x10-6
8.00
8.50
9.00
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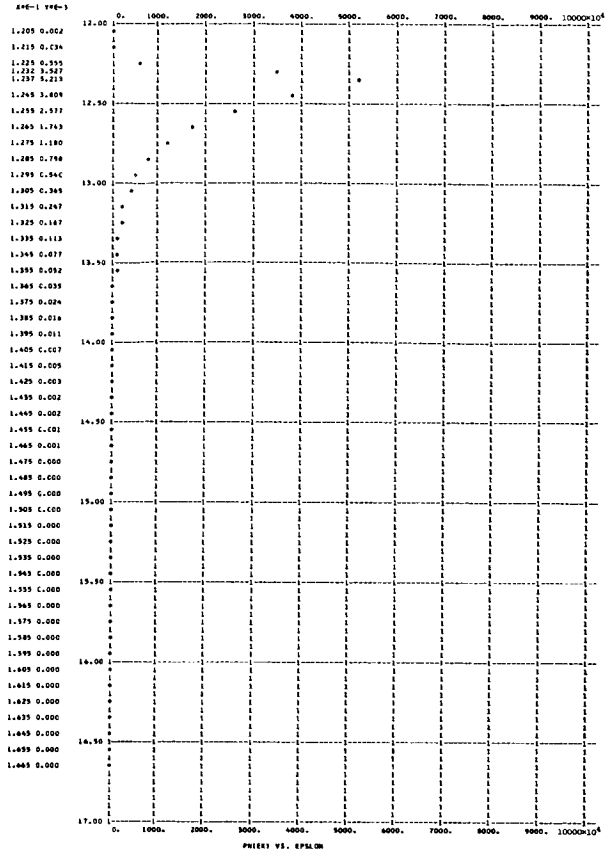
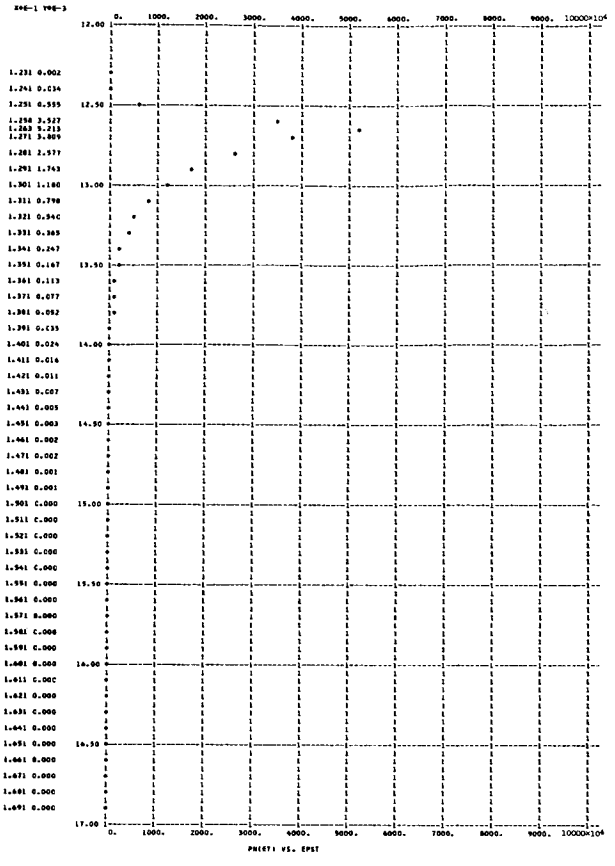
10.00
10.50
11.00
11.50
12.00
12.50
13.00
J(ET)/DELET VS. EPST



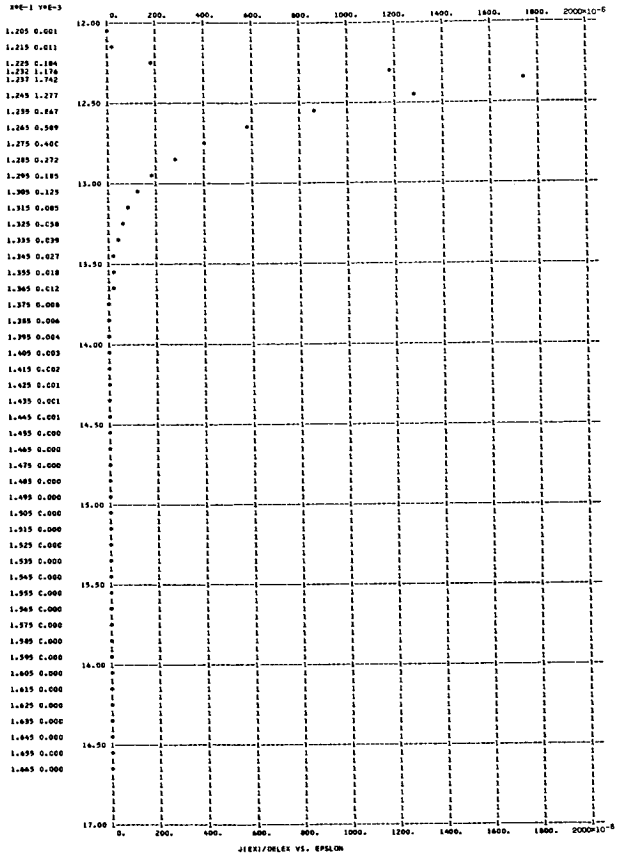


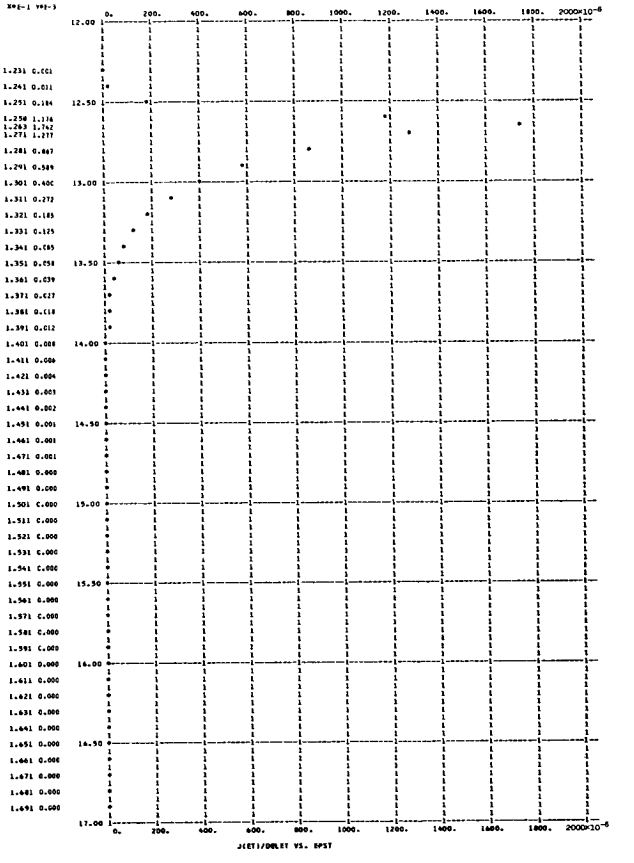
T = 0.30000000E 04 E = 0.31622783E 07 PHI = 8.00 AMU = 5.00 EVMAX = 12.3395

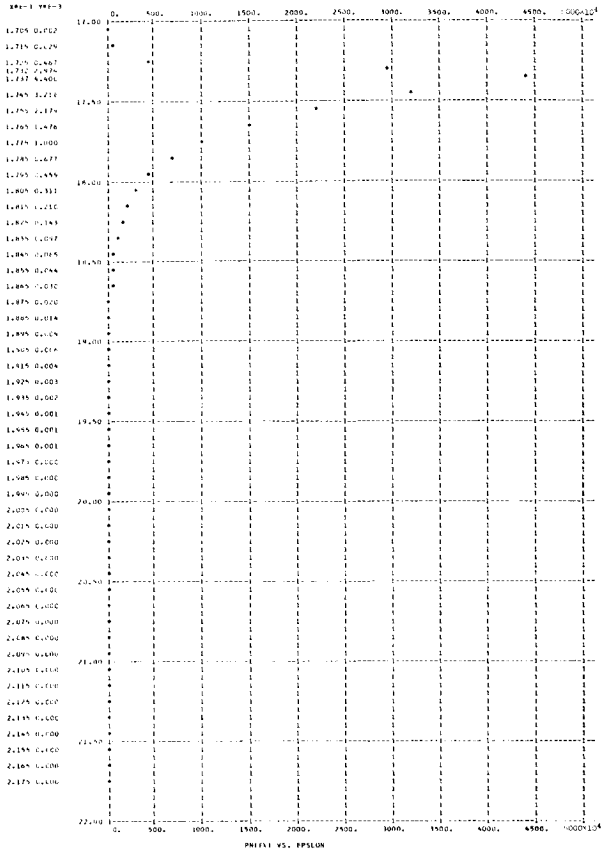
NEM = 0.50929833E 23 NEE = 0.16916023E 08 VXAV = 0.21019934E 09 KEXAV = 0.12562747E 02 KEXFL = 0.26412352E 10

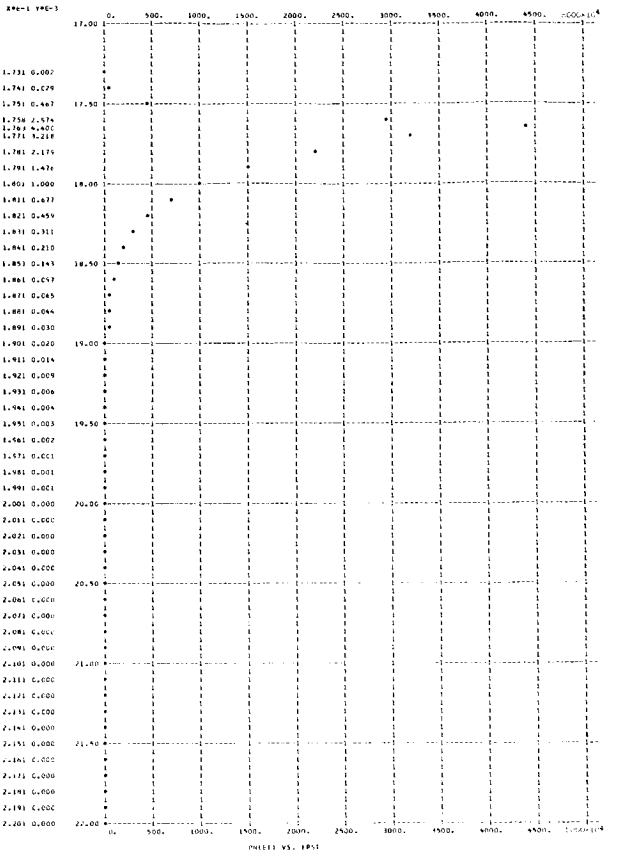
J = 0.569629E-03 KETAV= 0.128213E 02 KETFL= 0.269557E 10 TZERO = 0.991904E 05 TD = 0.201007E 04

Figure 3. - Continued.


0.
200.
400.
600.
800.
1000.
1200.
1400.
1600.
1800.
2000×10⁻⁶
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
16.50
17.00
J(EX)/DELEX VS. EPSLON


0.
200.
400.
600.
800.
1000.
1200.
1400.
1600.
1800.
2000×10⁻⁶
12.00
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
16.50
17.00
J(ET)/DELET VS. EPST



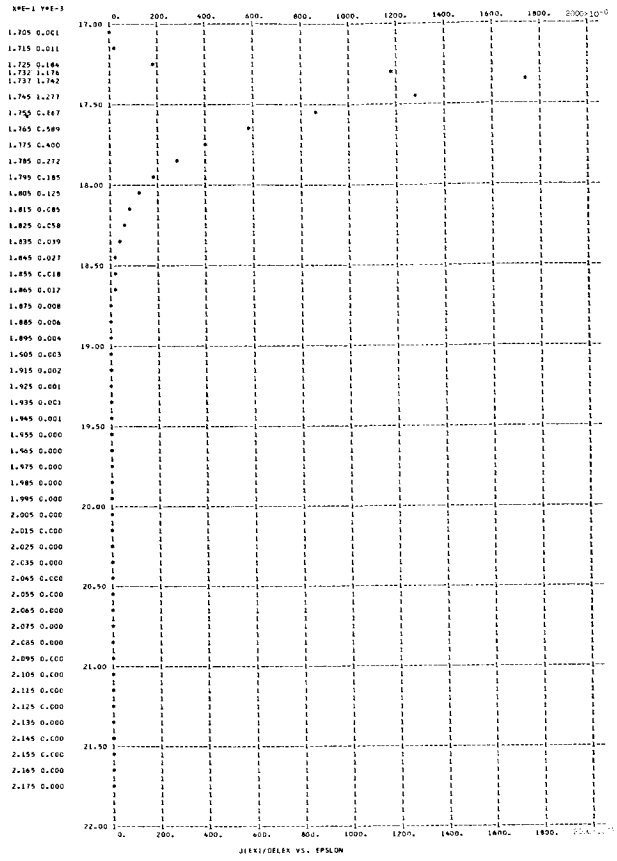


T = 0.30000000E 04 E = 0.31622783E 07 PHI = 8.00 AMU = 10.00 EVMAX = 17.3395

NEM = 0.14377540E 24 NEE = 0.14306189E 08 VXAV = 0.24854513E 09 KEXAV = 0.17563480E 02 KEXFL = 0.43657902E 10

J = 0.569629E-03 KETAV= 0.178220E 02 KETFL= 0.443004E 10 TZERO = 0.137878E 06 TD = 0.200726E 04

Figure 3. - Continued.


0.
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1400.
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2000×10⁻⁶
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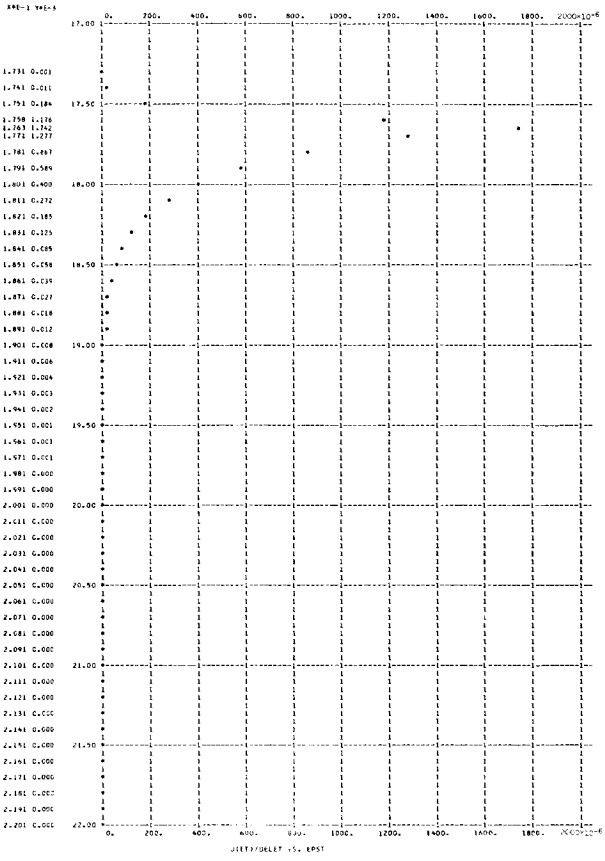
22.00
JEEK1/DELEK VS. EPSLON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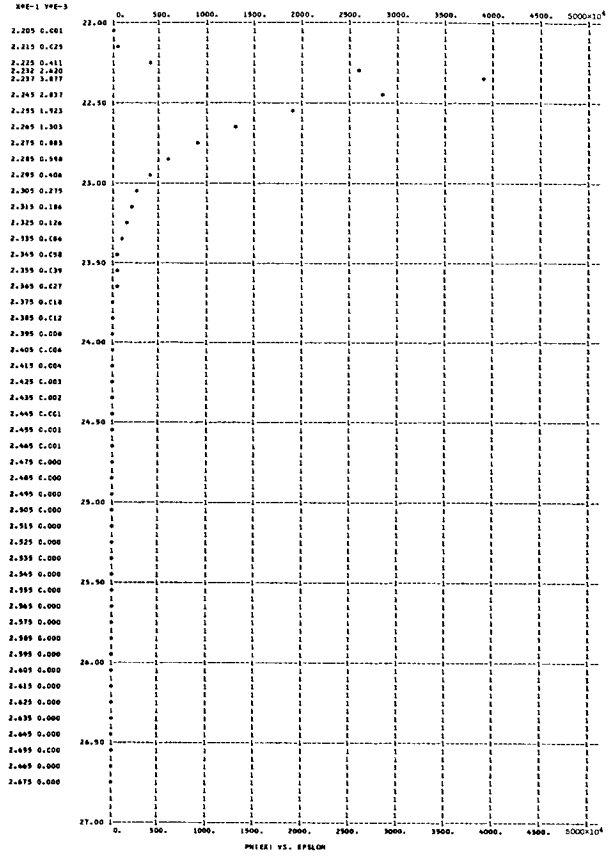
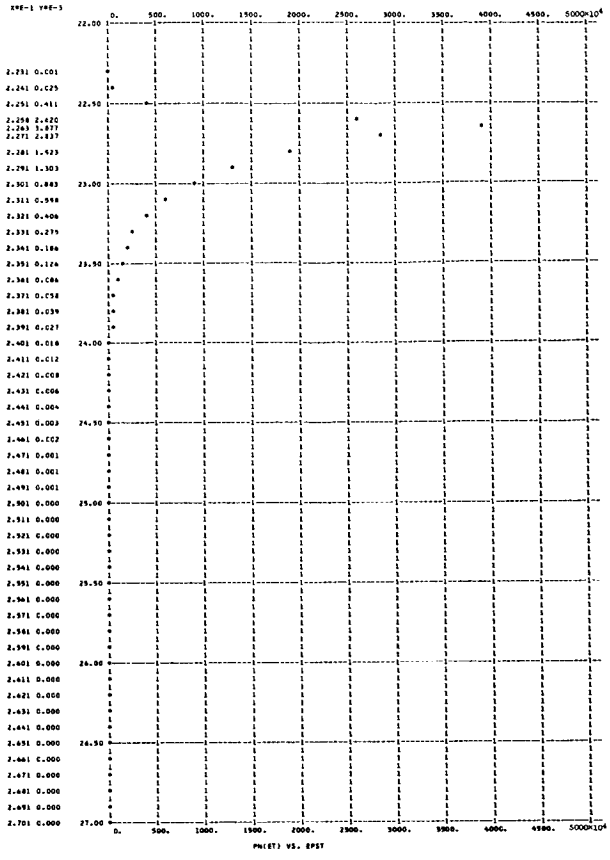
JEET/DELET VS. EPST



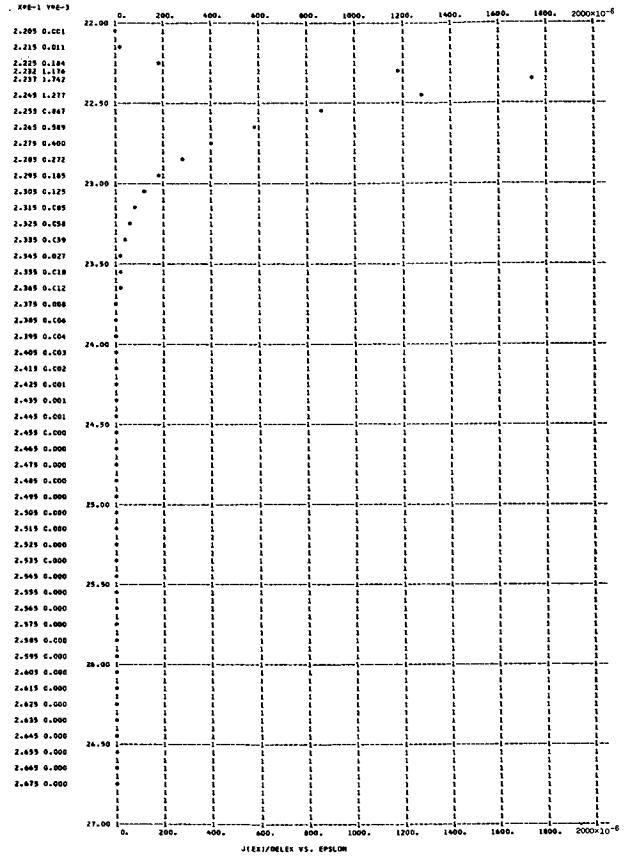


T = 0.30000000E 04 E = 0.31622783E 07 PHI = 8.00 AMU = 15.00 EVMAX = 22.3395

NEM = 0.26404823E 24 NEE = 0.12621694E 08 VXAV = 0.28171599E 09 KEXAV = 0.22563896E 02 KEXFL = 0.63570300E 10

J = 0.569628E-03 KETAV= 0.228224E 02 KETFL= 0.642986E 10 TZERO = 0.176563E 06 TD = 0.200571E 04

Figure 3. - Continued.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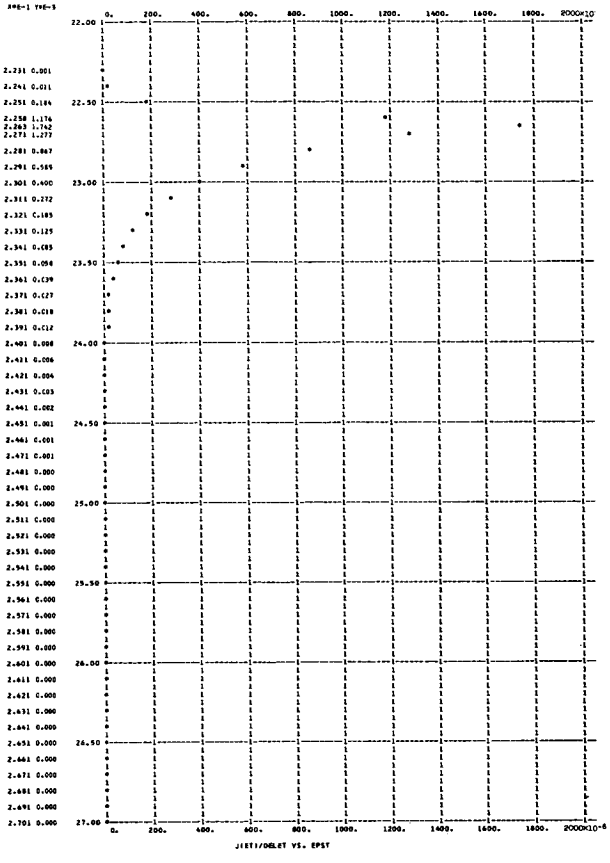
J(EX)/DELEX VS. EPSLON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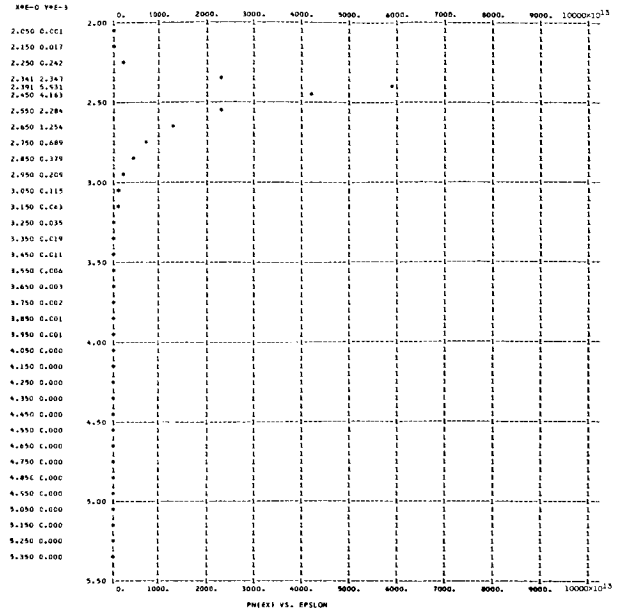
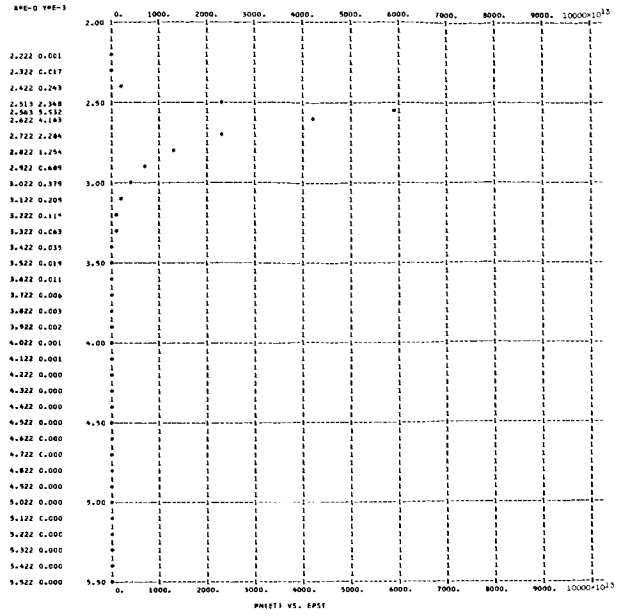
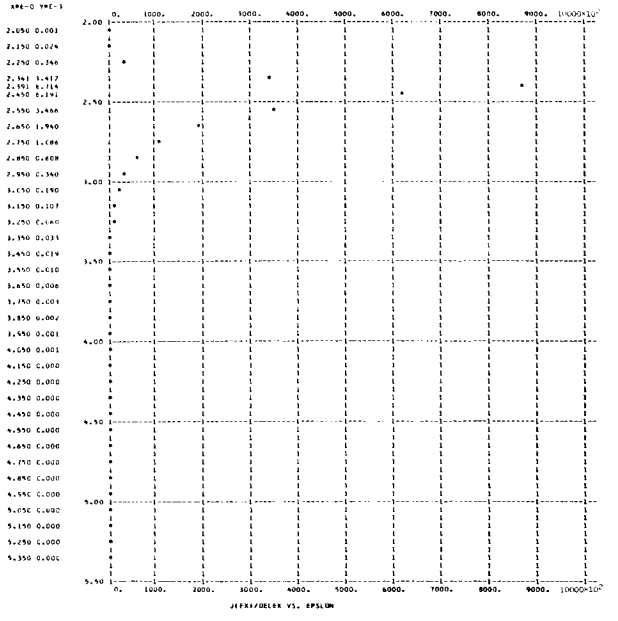
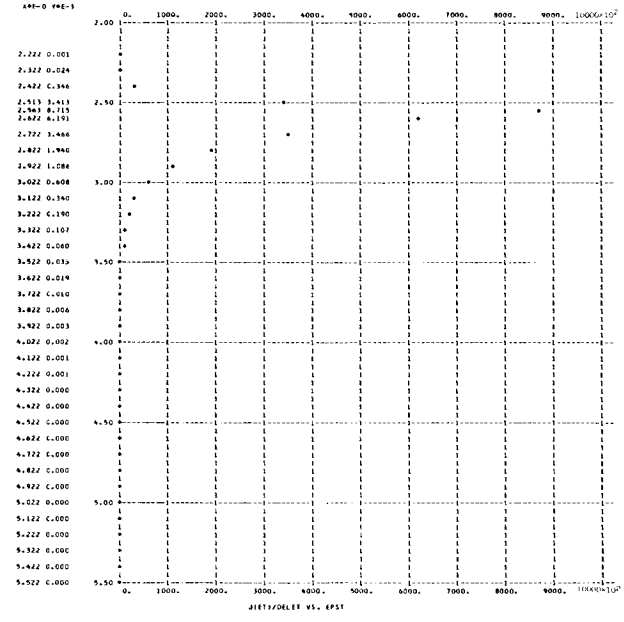
26.50
27.00
J(ET)/DELET VS. EPST







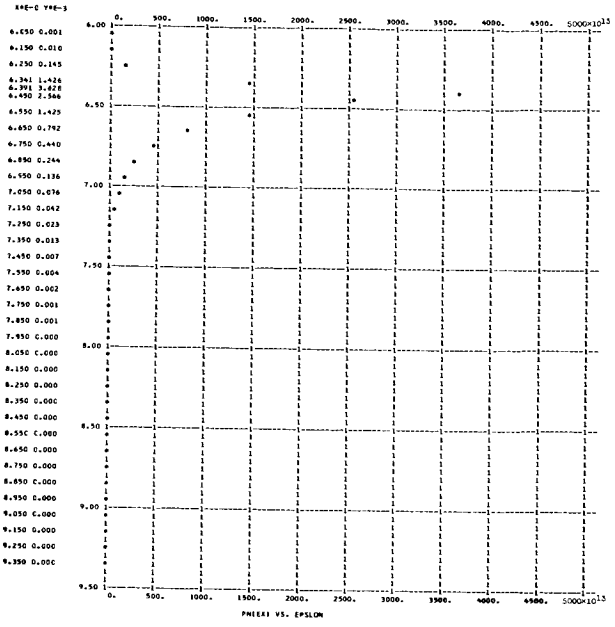


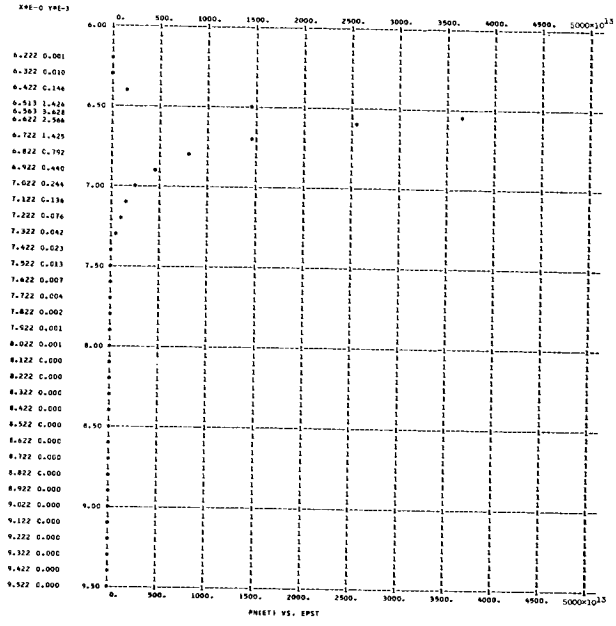
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 2.00 AMU = 1.00 EVMAX = 2.3821

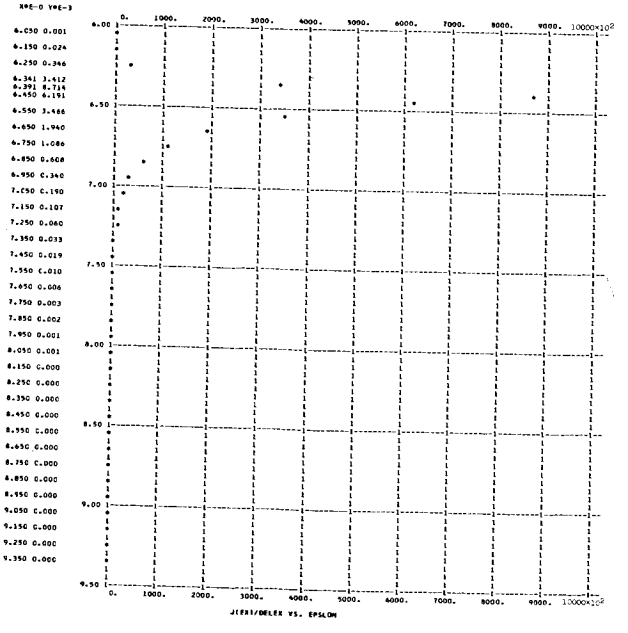
NEM = 0.46731980E 22 NEE = 0.12482858E 17 VXAV = 0.93984957E 08 KEXAV = 0.25141069E 01 KEXFL = 0.23683561E 09

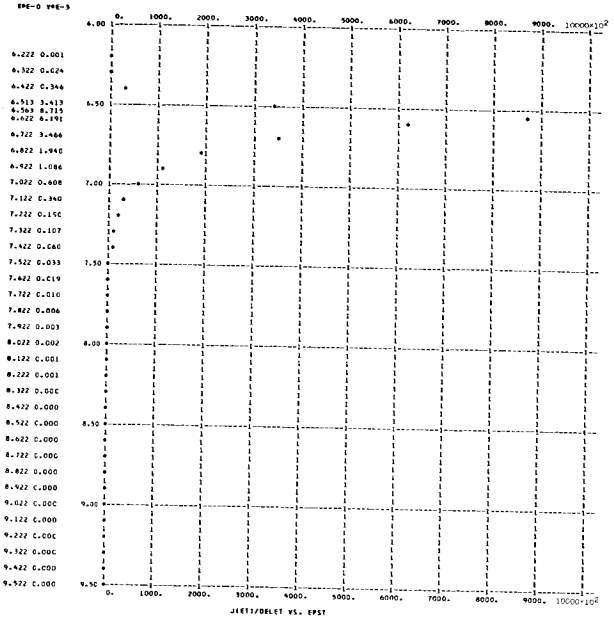
J = 0.187947E 06 KETAV= 0.268646E 01 KETFL= 0.253034E 09 TZERO = 0.207835E 05 TD = 0.135534E 04

Figure 3. - Continued.







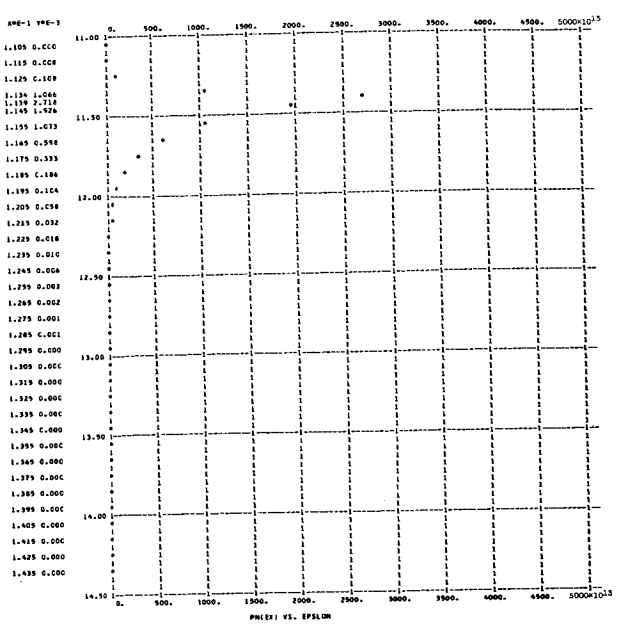


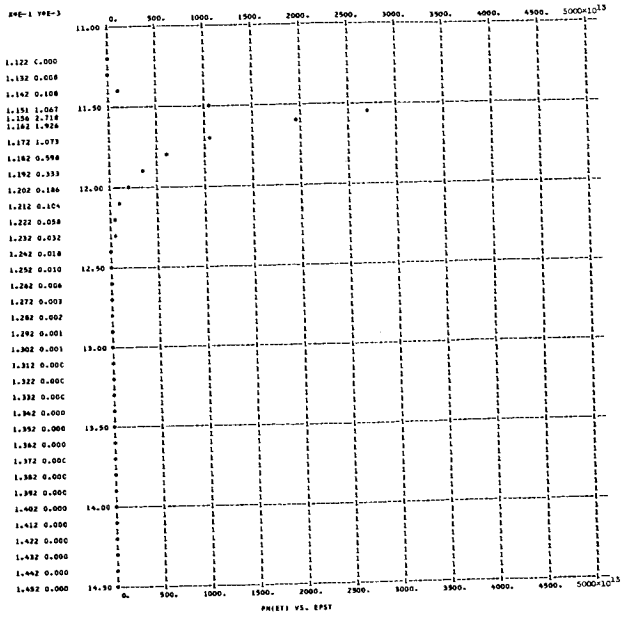
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 2.00 AMU = 5.00 EVMAX = 6.3821

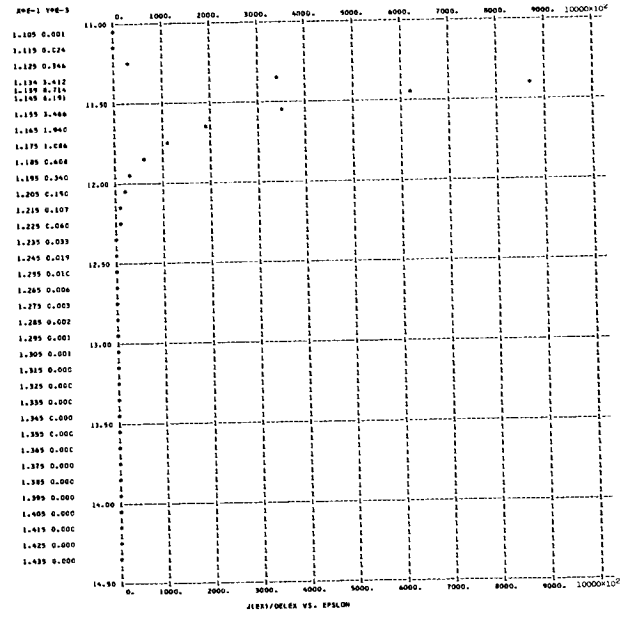
NEM = 0.50836430E 23 NEE = 0.77489034E 16 VXAV = 0.15139653E 09 KEXAV = 0.65175774E 01 KEXFL = 0.98709495E 09

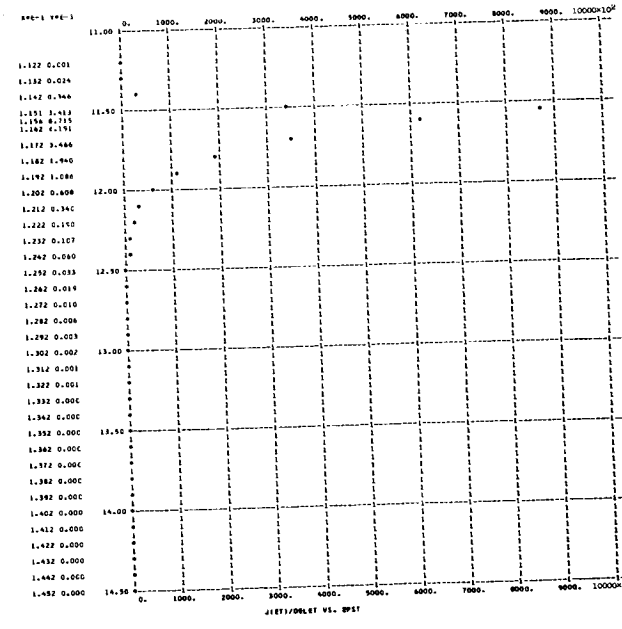
J = 0.187940E 06 KETAV= 0.668993E 01 KETFL= 0.101319E 10 TZERO = 0.517560E 05 TD = 0.134240F 04

Figure 3. - Continued.







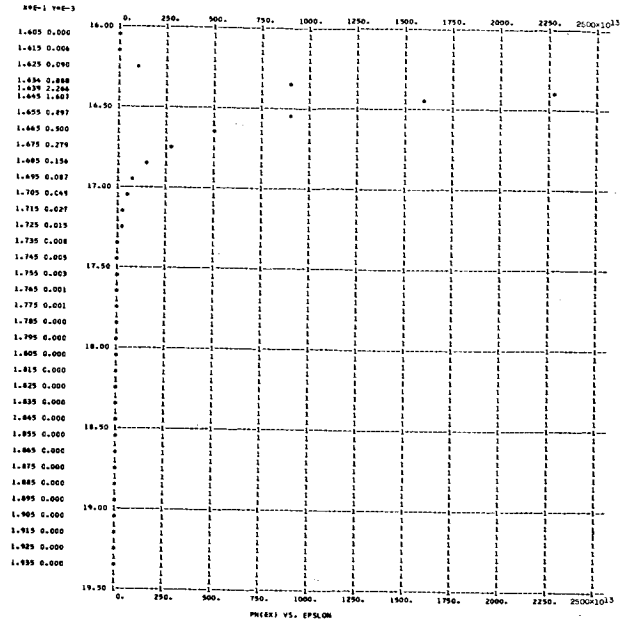


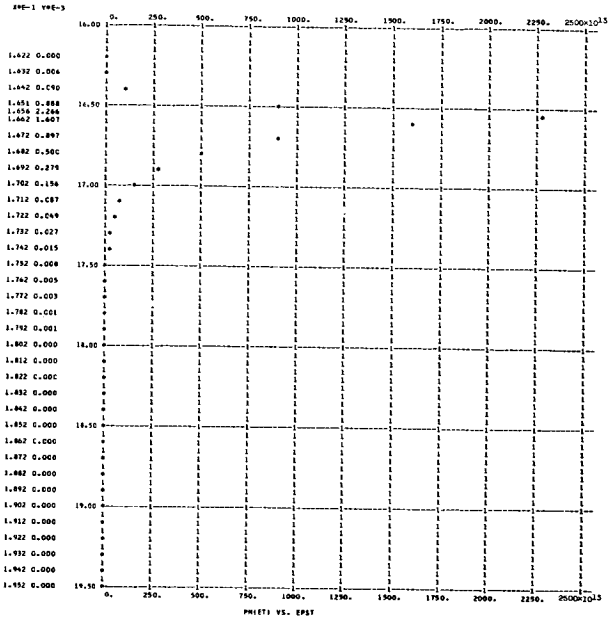
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 2.00 AMU = 10.00 EVMAX = 11.3821

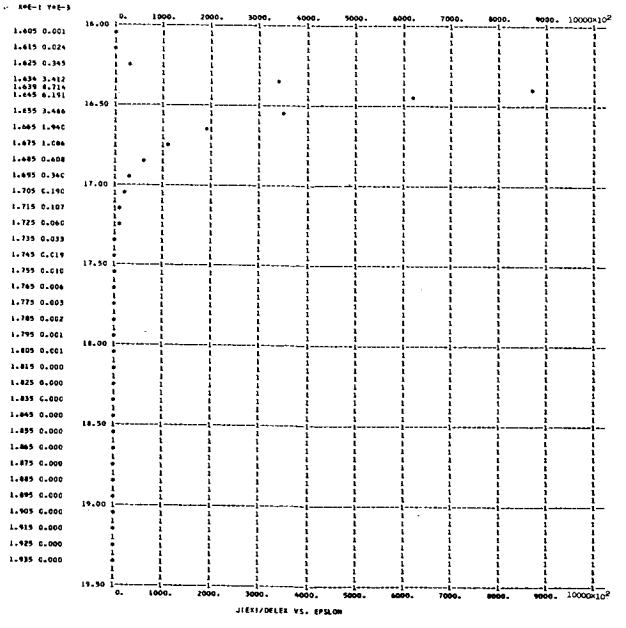
NEM = 0.14370953E 24 NEE = 0.58284760E 16 VXAV = 0.20127898E 09 KEXAV = 0.11518580E 02 KEXFL = 0.23187199E 10

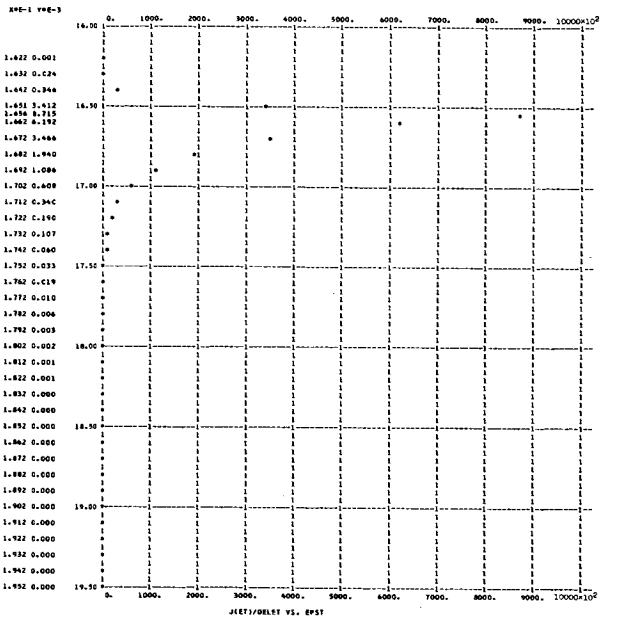
J = 0.187939E 06 KETAV= 0.116909E 02 KETFL= 0.235341E 10 TZERO = 0.904458E 05 TD = 0.133858E 04

Figure 3. - Continued.







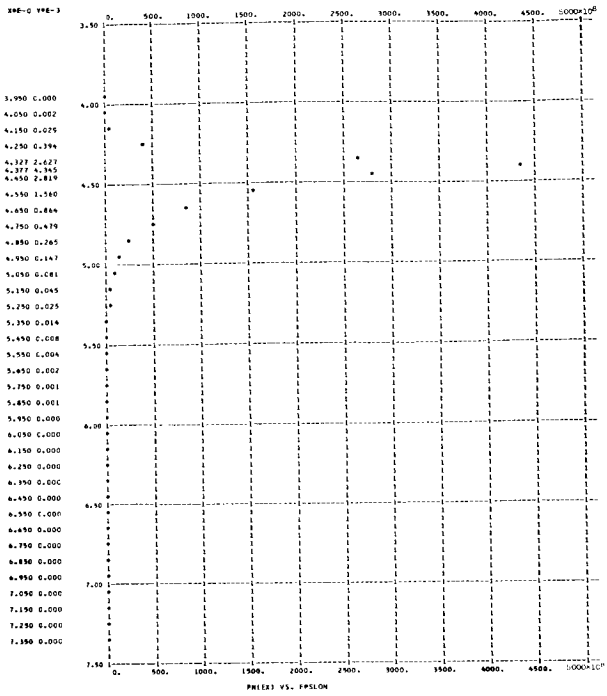


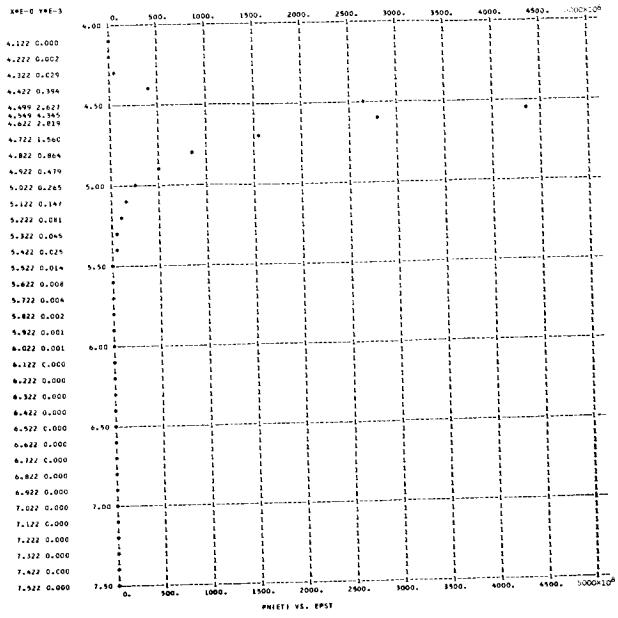
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 2.00 AMU = 15.00 EVMAX = 16.3821

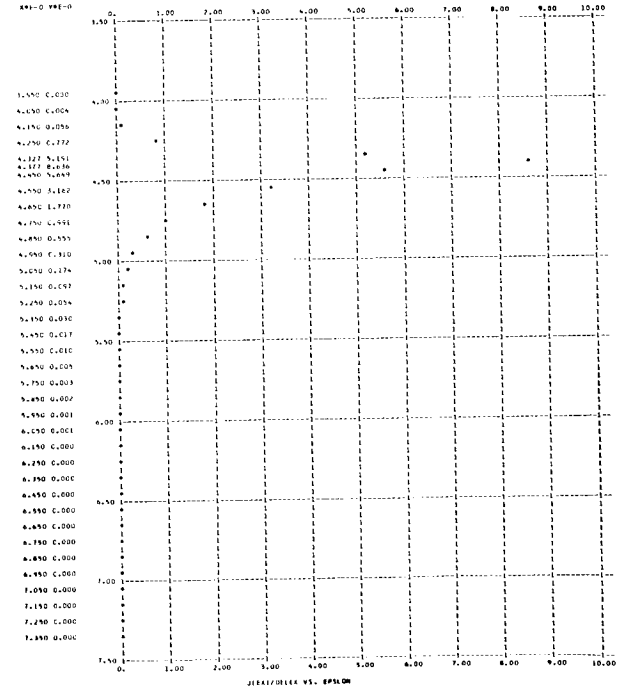
NEM = 0.26399449E 24 NEE = 0.48669303E 16 VXAV = 0.24104443E 09 KEXAV = 0.16518983E 02 KEXFL = 0.39820375E 10

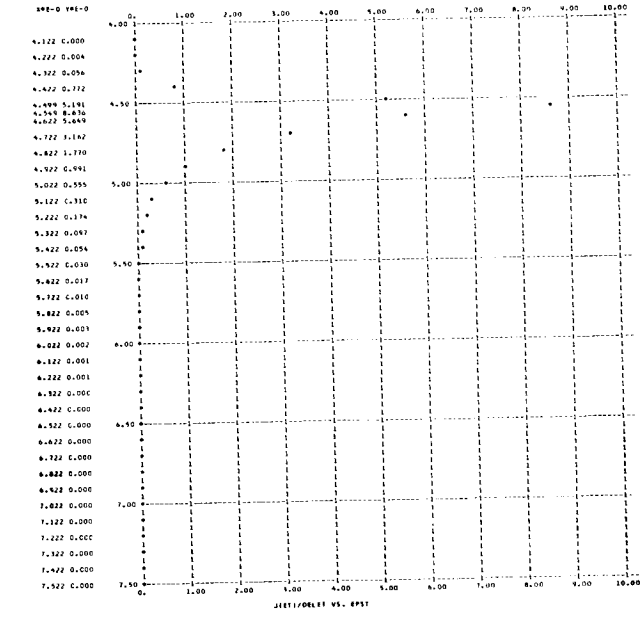
J = 0.187938E 06 KETAV= 0.166913E 02 KETFL= 0.402358E 10 TZERO = 0.129131E 06 TD = 0.133701E 04

Figure 3. - Continued.







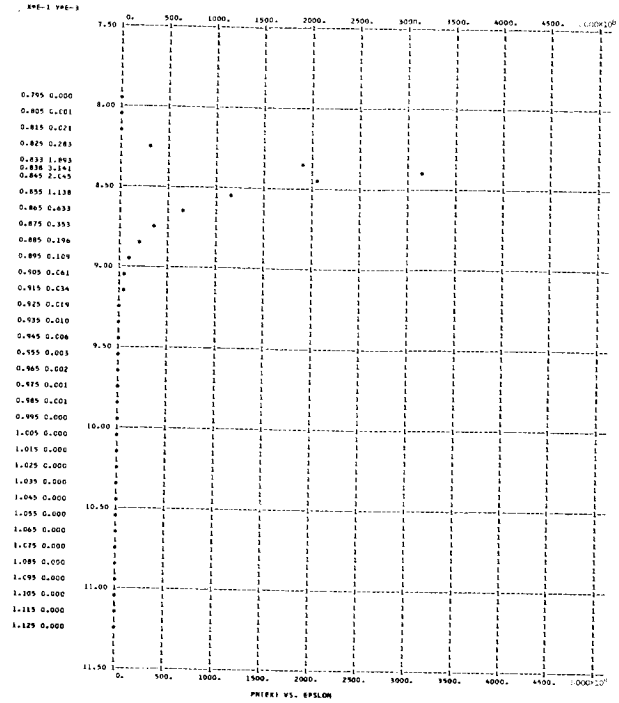


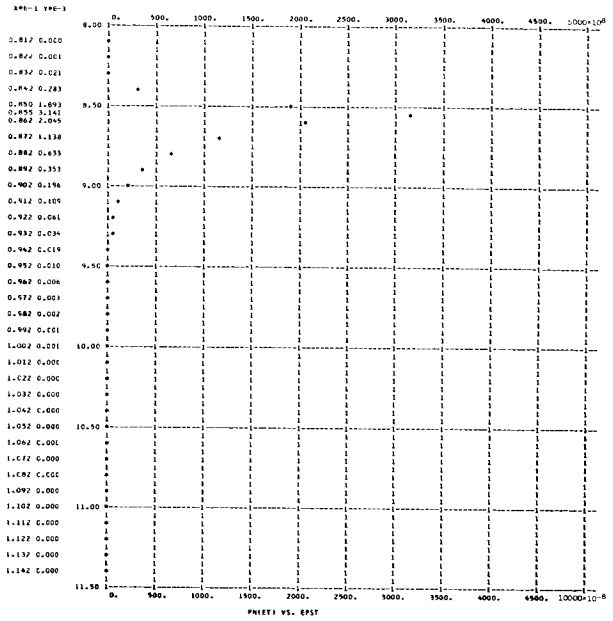
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 4.00 AMU = 1.00 EVMAX = 4.3537

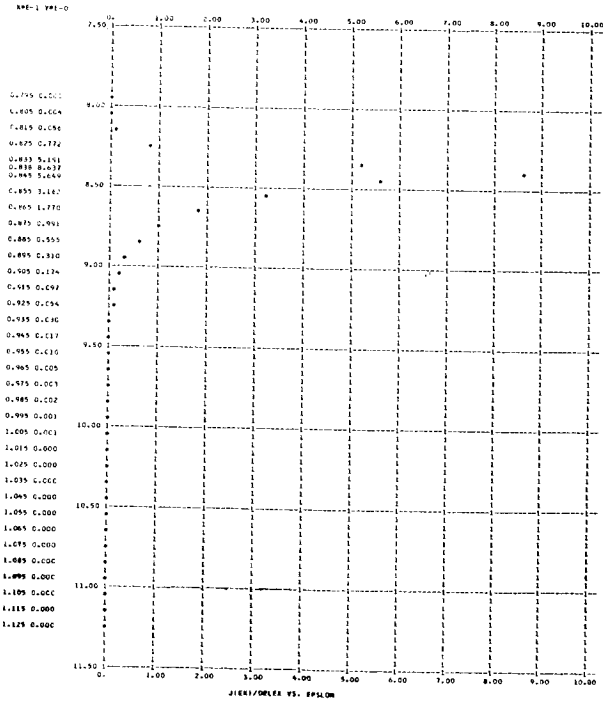
NEM = 0.46731979E 22 NEE = 0.10163575E 12 VXAV = 0.12560444E 09 KEXAV = 0.44868992E 01 KEXFL = 0.56399512E 09

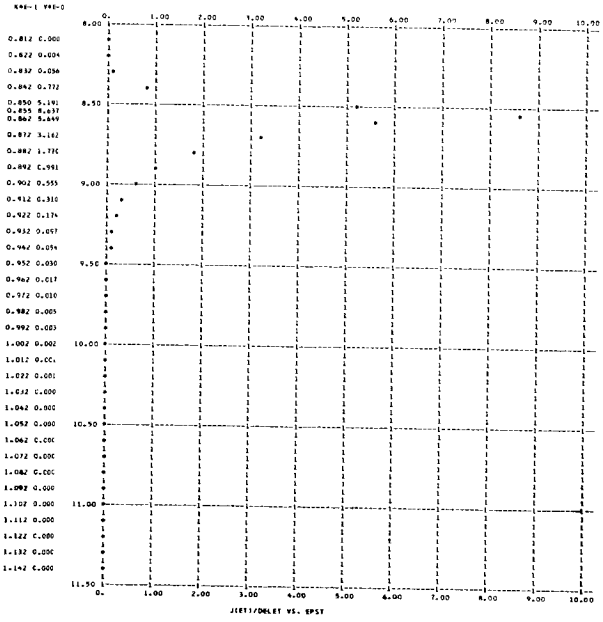
J = 0.204510E 01 KETAV= 0.465924E 01 KETFL= 0.585642E 09 TZERO = 0.360458E 05 TD = 0.134607E 04

Figure 3. - Continued.







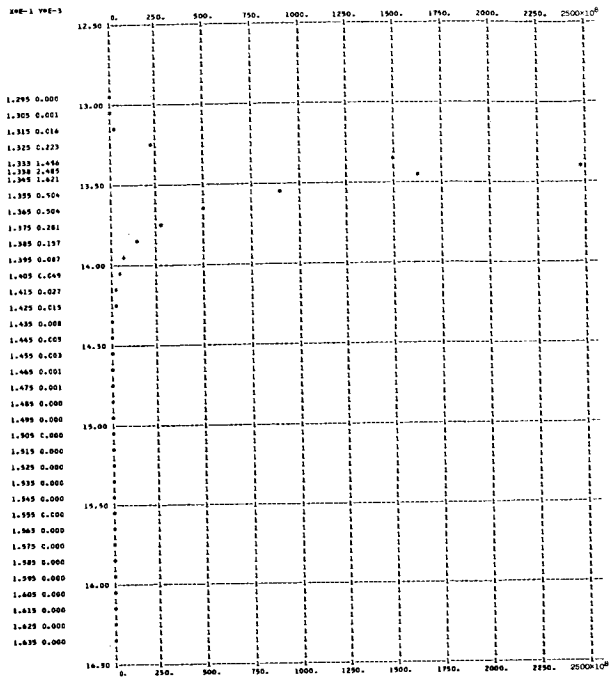


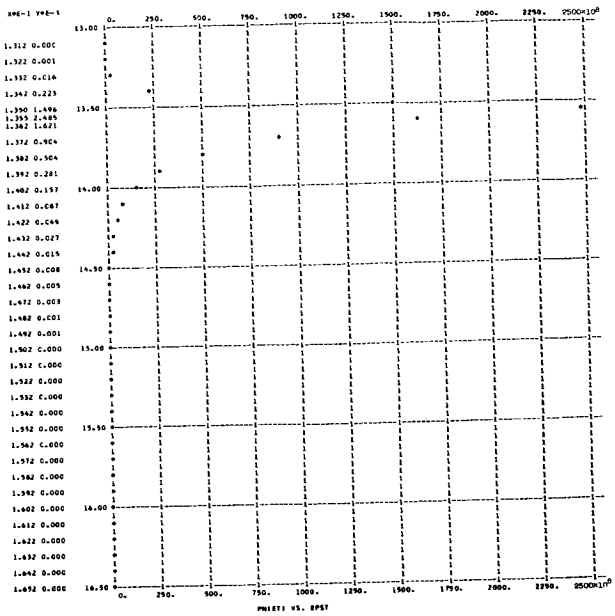
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 4.00 AMU = 5.00 EVMAX = 8.3537

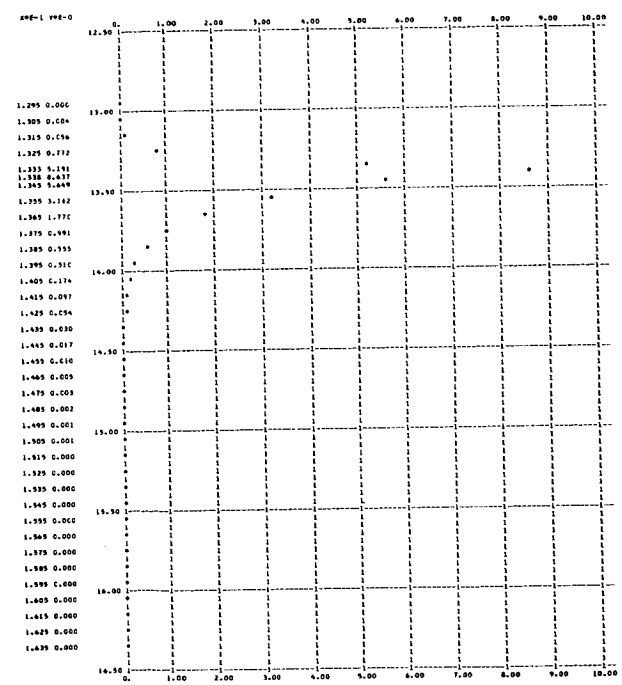
NEM = 0.50836430E 23 NEE = 0.73883197E 11 VXAV = 0.17278362E 09 KEXAV = 0.84884389E 01 KEXFL = 0.14669758E 10

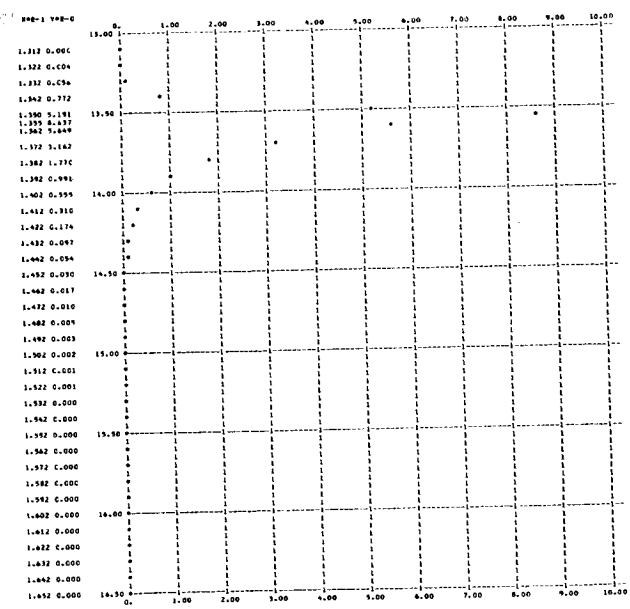
J = 0.204508E 01 KETAV= 0.866078E 01 KETFL= 0.149675E 10 TZERO = 0.670033E 05 TD = 0.134025E 04

Figure 3. - Continued.







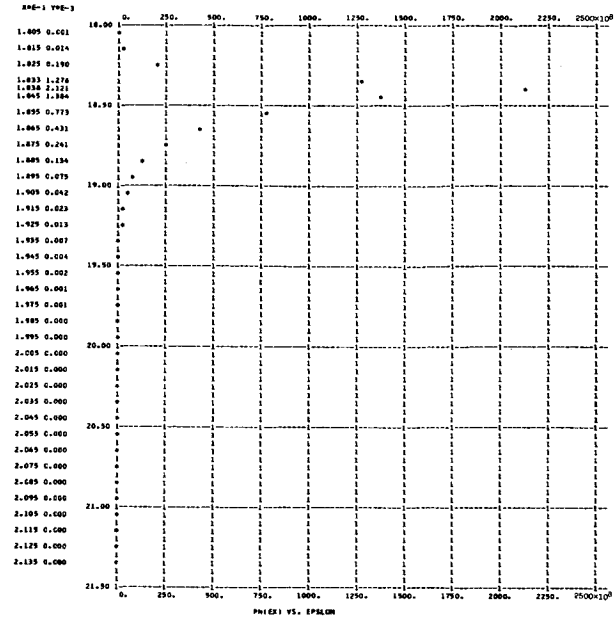


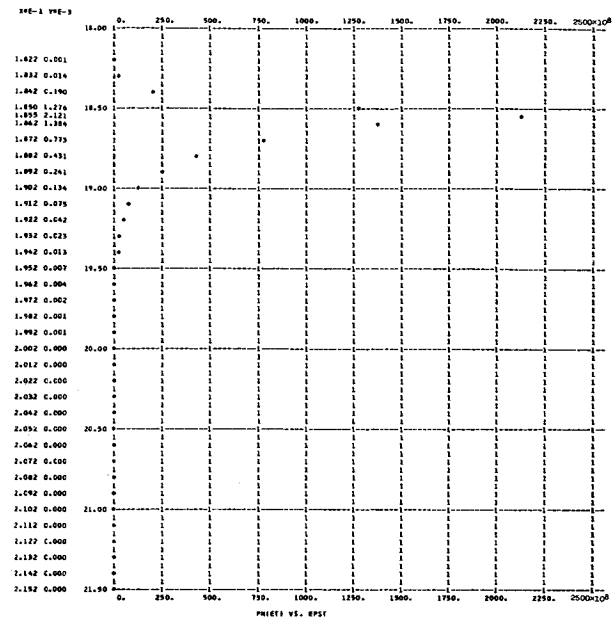
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 4.00 AMU = 10.00 EVMAX = 13.3537

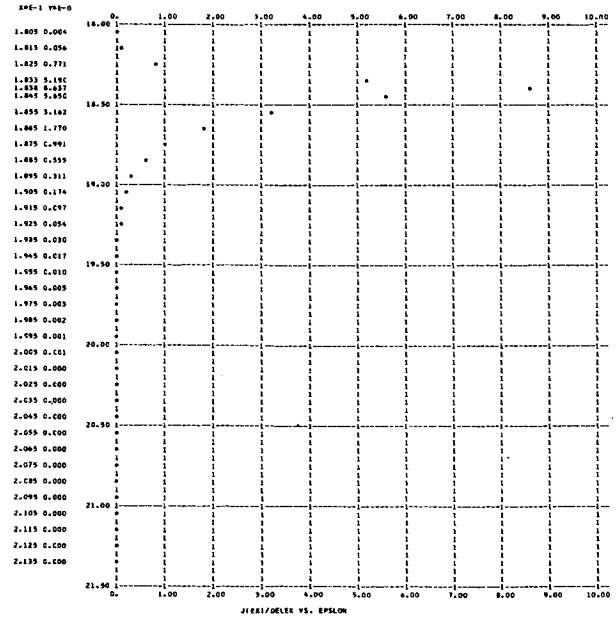
NEM = 0.14370953E 24 NEE = 0.58607472E 11 VXAV = 0.21781805E 09 KEXAV = 0.13489098E 02 KEXFL = 0.29384194E 10

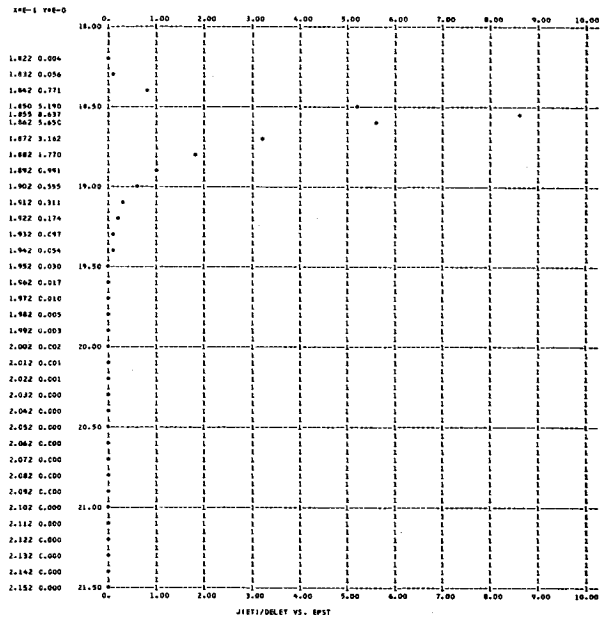
J = 0.204508E 01 KETAV= 0.136614E 02 KETFL= 0.297596E 10 TZERO = 0.105690E 06 TD = 0.133774E 04

Figure 3. - Continued.







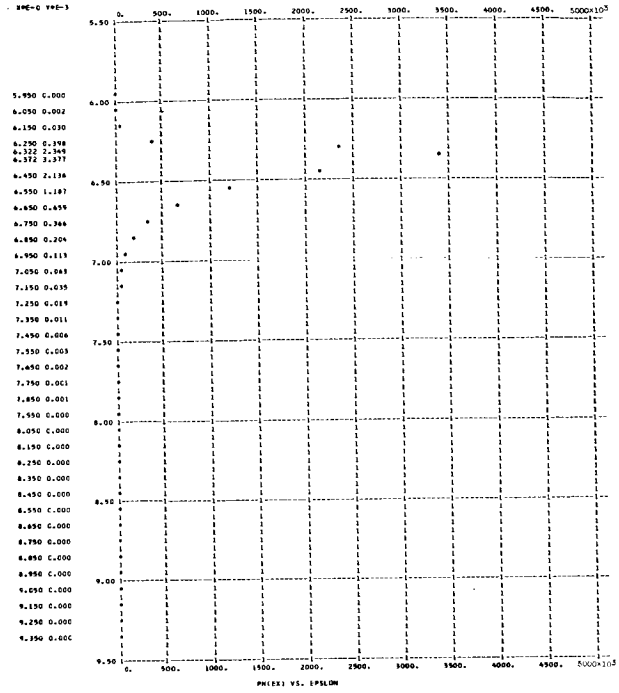


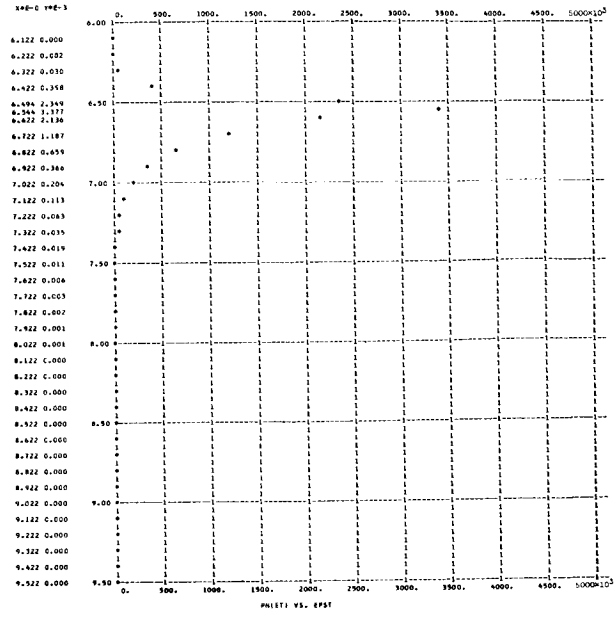
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 4.00 AMU = 15.00 EVMAX = 18.3537

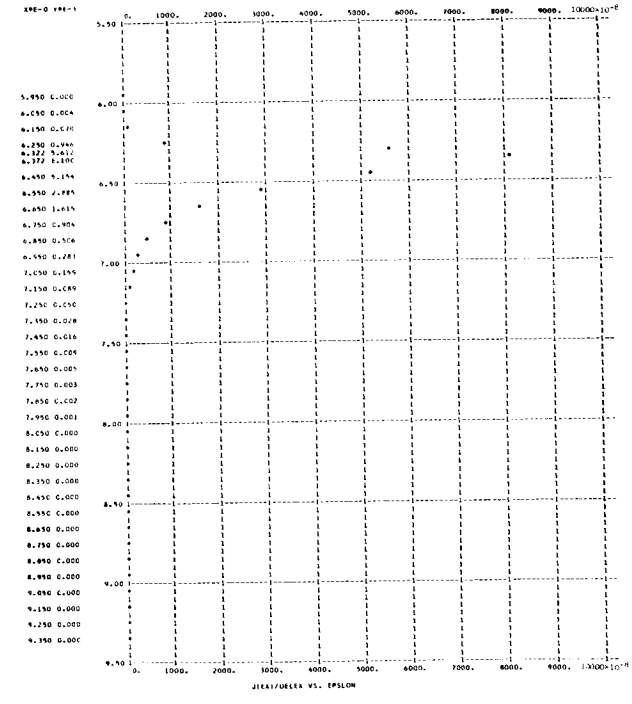
NEM = 0.26399449E 24 NEE = 0.50058533E 11 VXAV = 0.25501642E 09 KEXAV = 0.18489404E 02 KEXFL = 0.47153166E 10

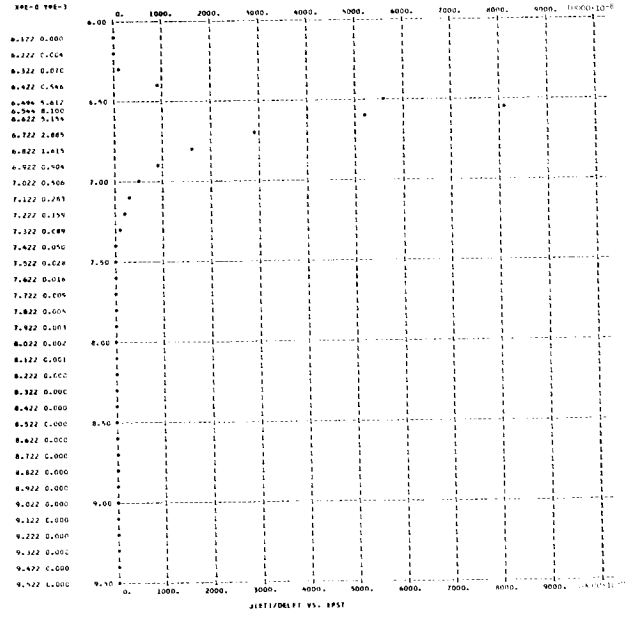
J = 0.2045C7E 01 KETAV= 0.186617E 02 KETFL= 0.475927E 10 TZERO = 0.144375E 06 TD = 0.133655E 04

Figure 3. - Continued.







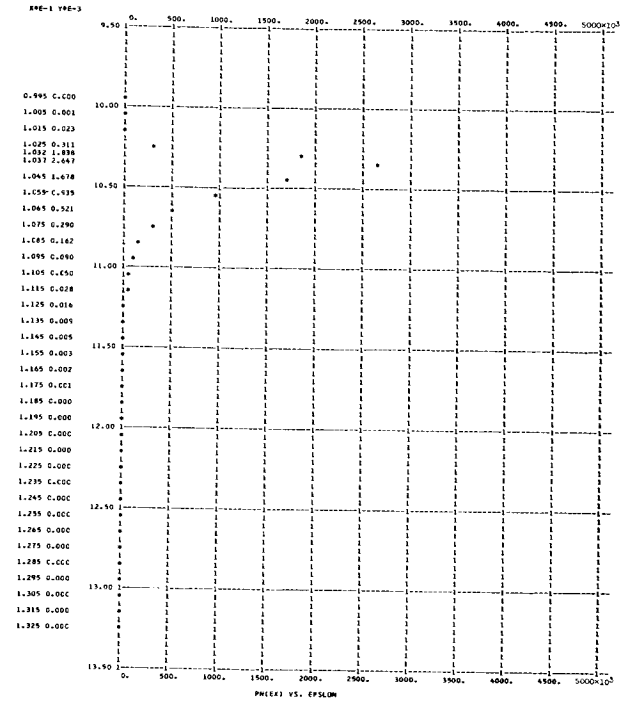


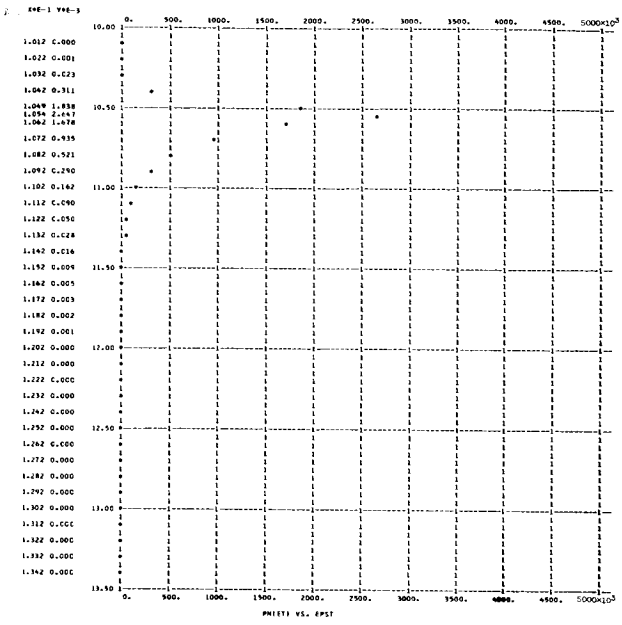
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 6.00 AMU = 1.00 EVMAX = 6.3442

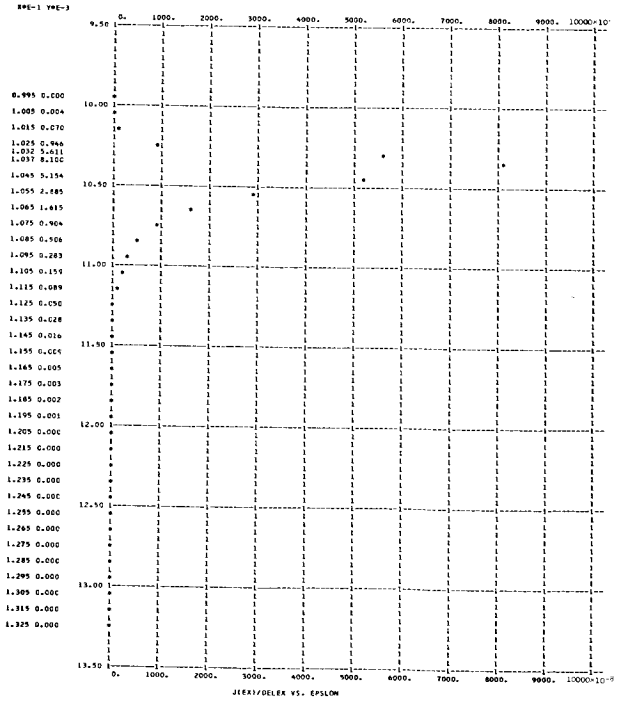
NEM = 0.46731979E 22 NEE = 0.81589877E 06 VXAV = 0.15094114E 09 KEXAV = 0.64784327E 01 KEXFL = 0.97821680E 09

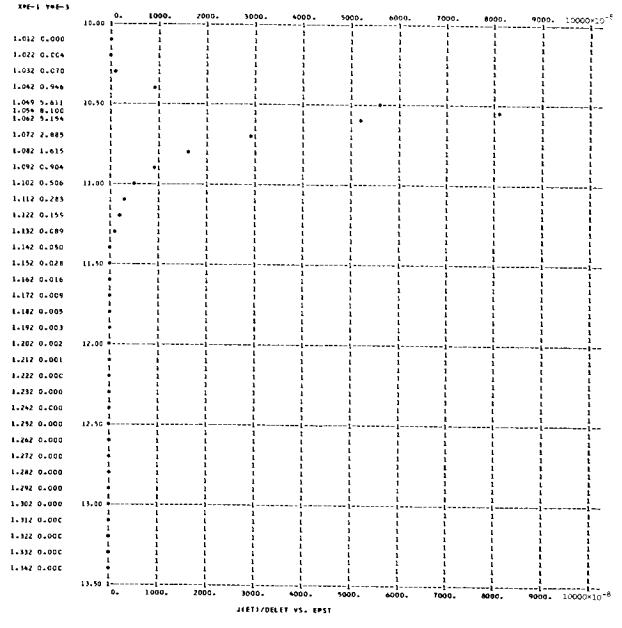
J = 0.197291E-04 KETAV= 0.665078E 01 KETFL= 0.100423E 10 TZERO = 0.514531E 05 TD = 0.134231E 04

Figure 3. -Continued.







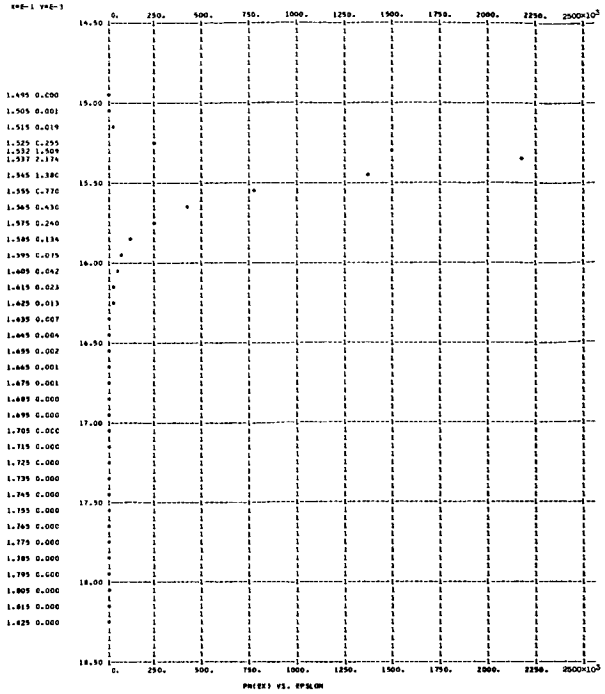


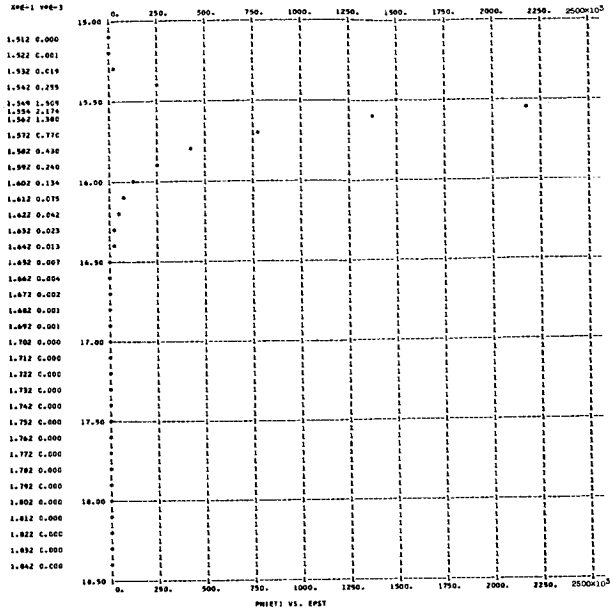
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 6.00 AMU = 5.00 EVMAX = 10.3442

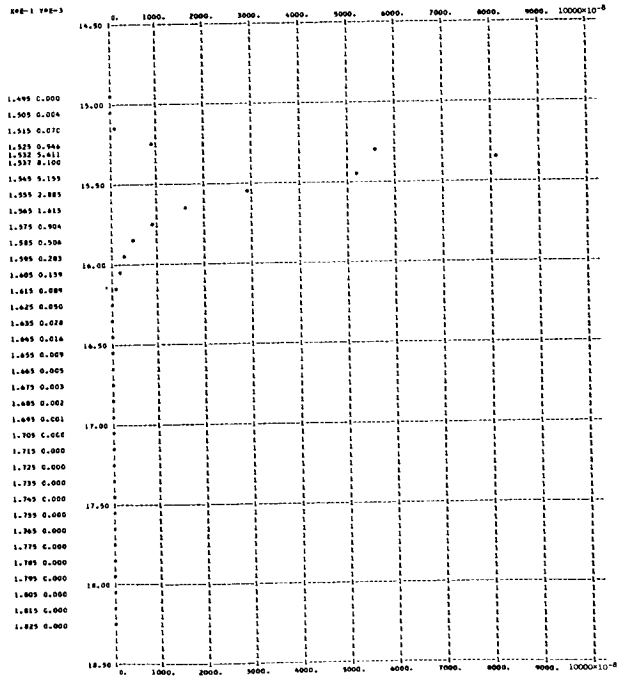
NEM = 0.50836430E 23 NEE = 0.64147476E 06 VXAV = 0.19198303E 09 KEXAV = 0.10479311E 02 KEXFL = 0.20121324E 10

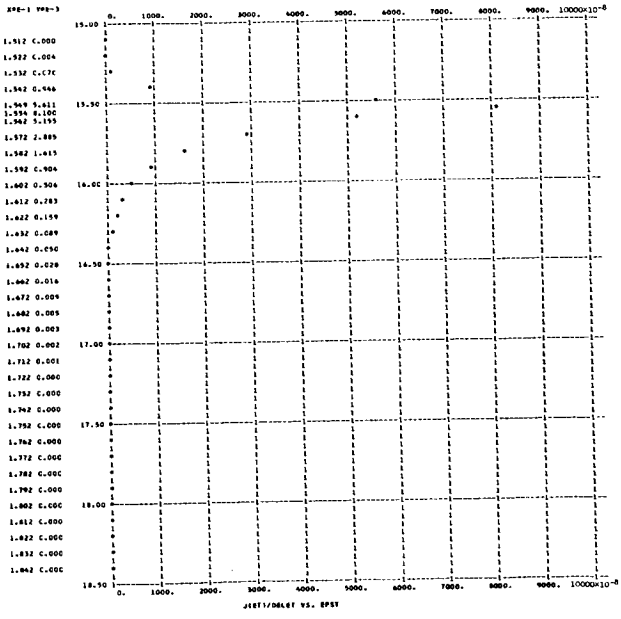
J = 0.197290E-04 KETAV= 0.106517E 02 KETFL= 0.204522E 10 TZERO = 0.824055E 05 TD = 0.133897E 04

Figure 3. -Continued.







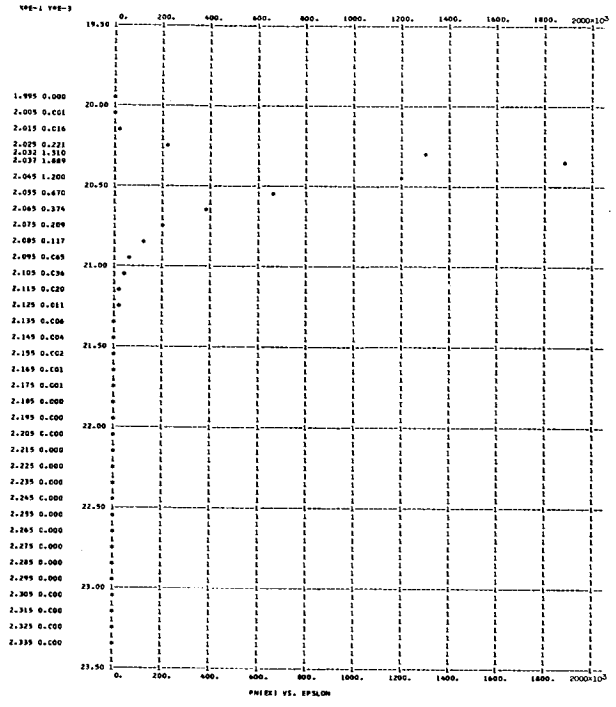


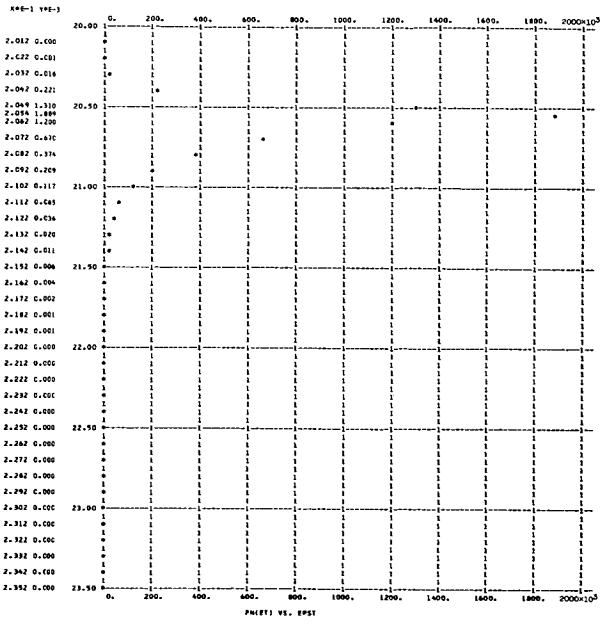
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 6.00 AMU = 10.00 EVMAX = 15.3442

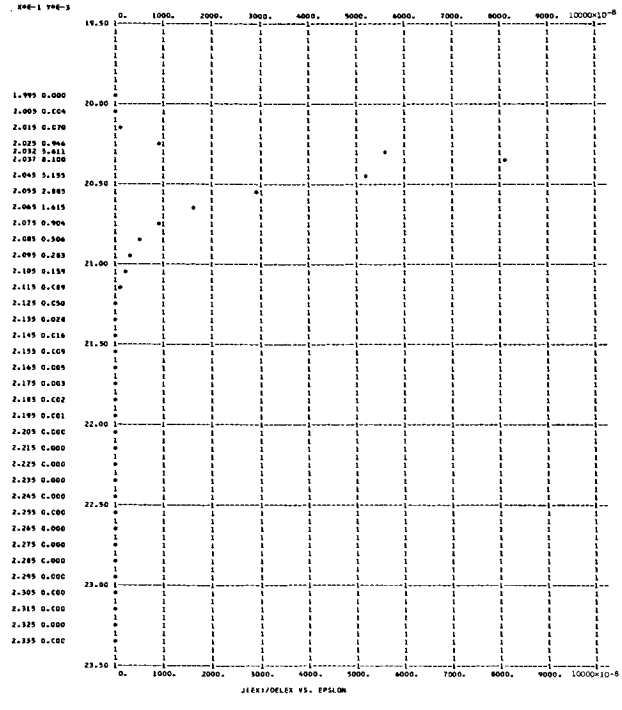
NEM = 0.14370953E 24 NEE = 0.52778216E 06 VXAV = 0.23333883E 09 KEXAV = 0.15479781E 02 KEXFL = 0.36122677E 10

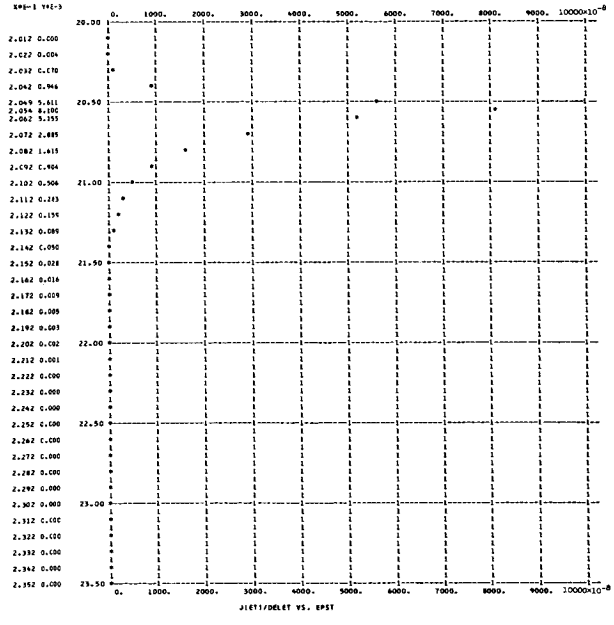
J = 0.197290E-04 KETAV= 0.156521E 02 KETFL= 0.365248E 10 TZERO = 0.121091E 06 TD = 0.133716E 04

Figure 3. - Continued.







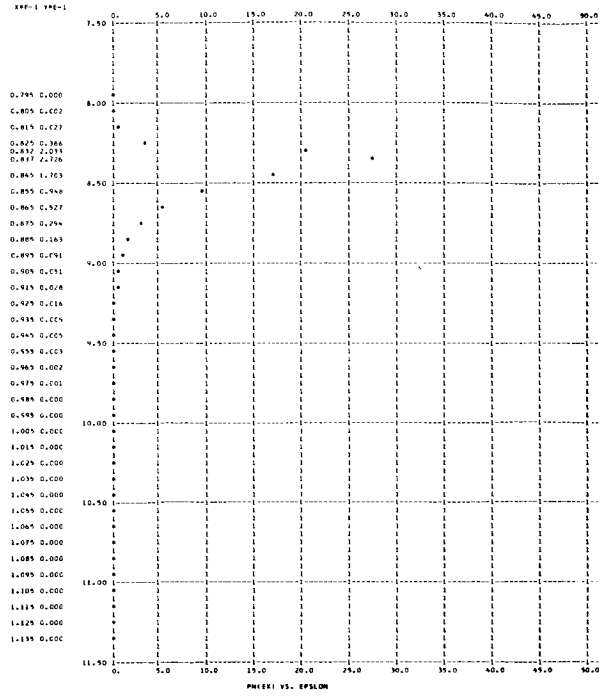


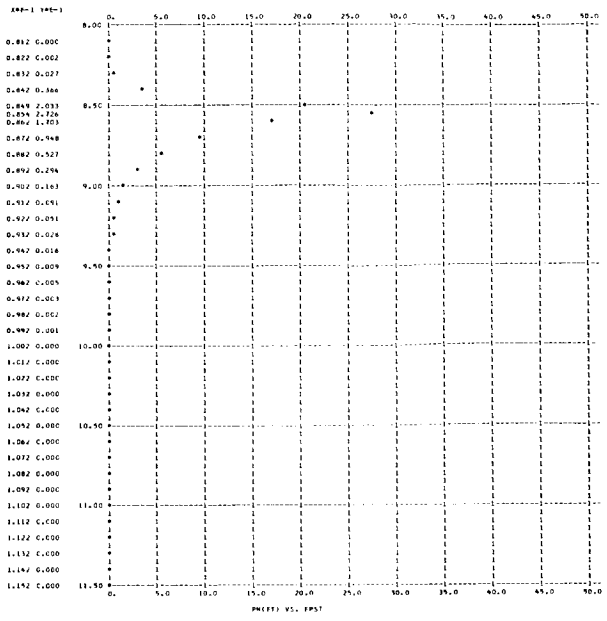
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 6.00 AMU = 15.00 EVMAX = 20.3442

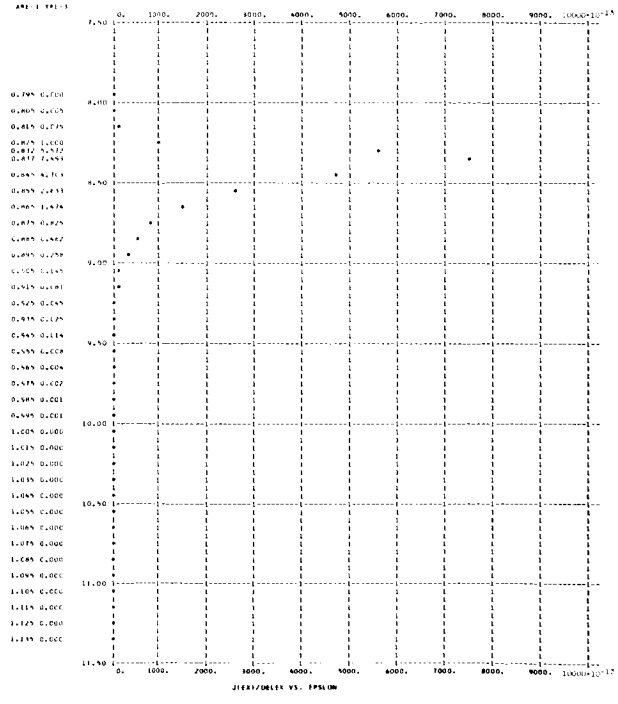
NEM = 0.26359449E 24 NEE = 0.45884810E 06 VXAV = 0.26839399E 09 KEXAV = 0.20480020E 02 KEXFL = 0.54969186E 10

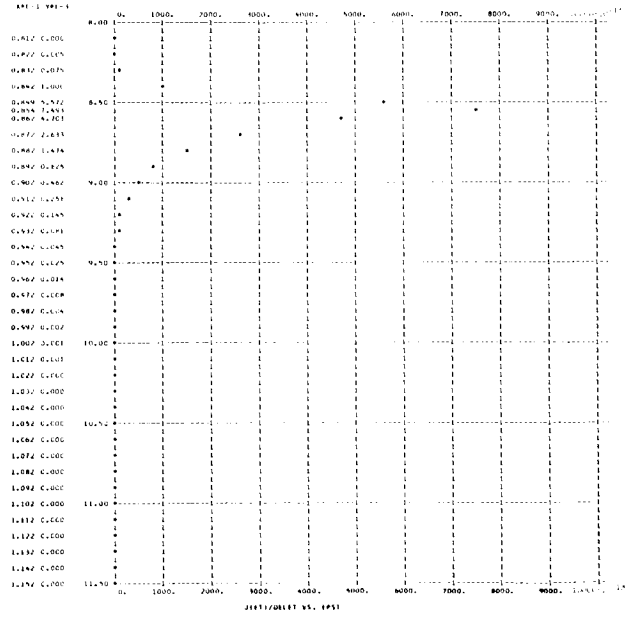
J = 0.197290E-04 KETAV= 0.206524E 02 KETFL= 0.554317E 10 TZERO = 0.159775E 06 TD = 0.133624E 04

Figure 3. - Continued.







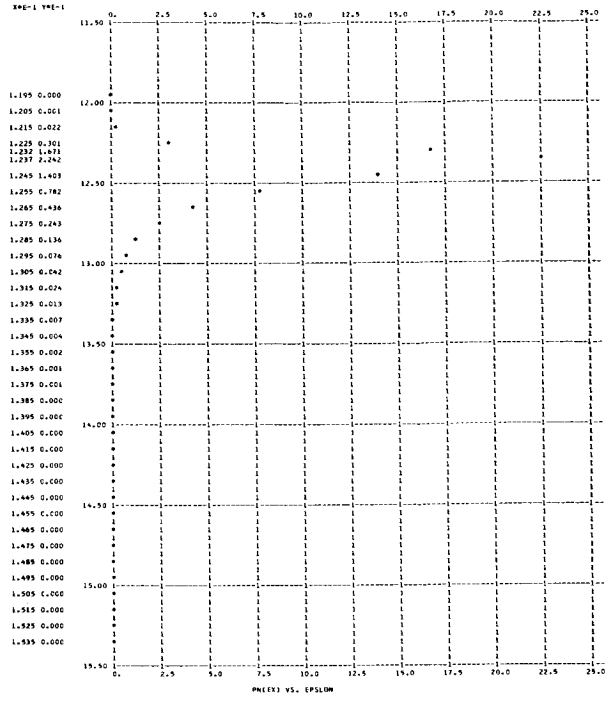


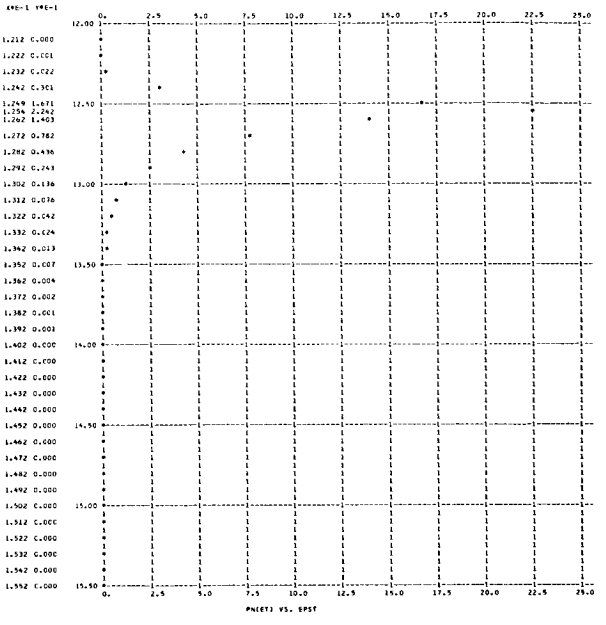
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 8.00 AMU = 1.00 EVMAX = 8.3395

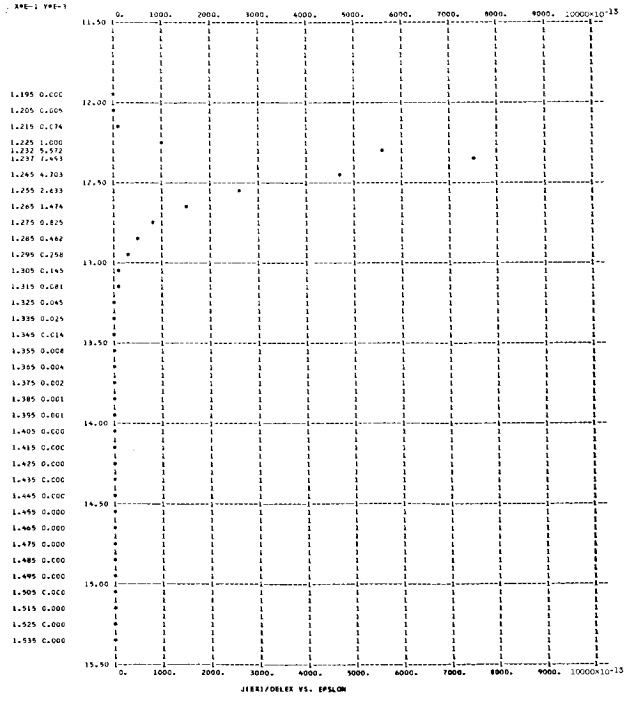
NEM = 0.46731979E 22 NEE = 0.66880749E 01 VXAV = 0.17263986E 09 KEXAV = 0.84743211E 01 KEXFL = 0.14633181E 10

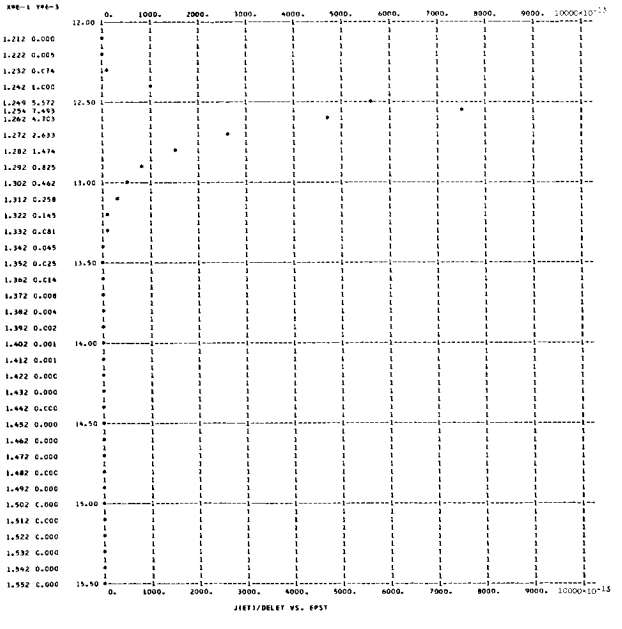
J = 0.184971E-09 KETAV= 0.864666E 01 KETFL= 0.149307E 10 TZERO = 0.668941E 05 TD = 0.134026E 04

Figure 3. - Continued.







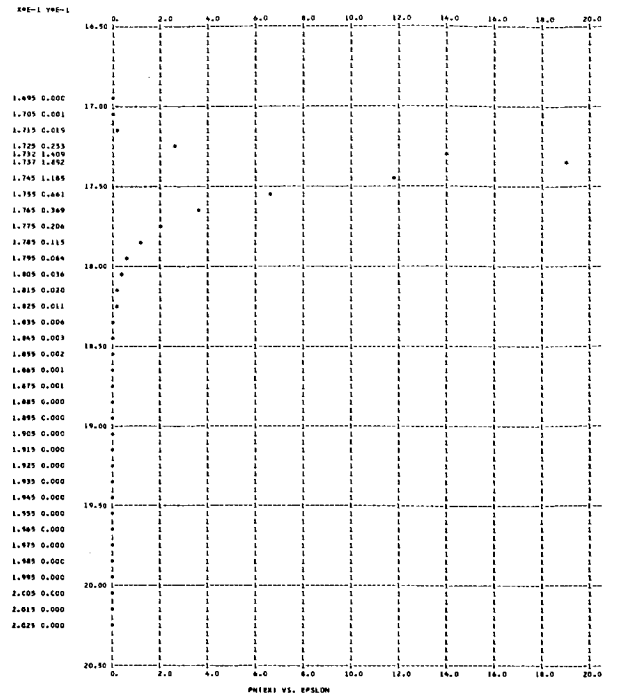


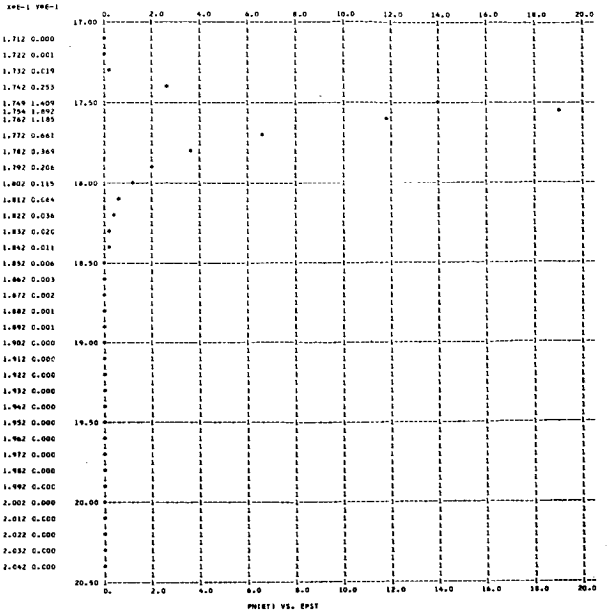
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 8.00 AMU = 5.00 EVMAX = 12.3395

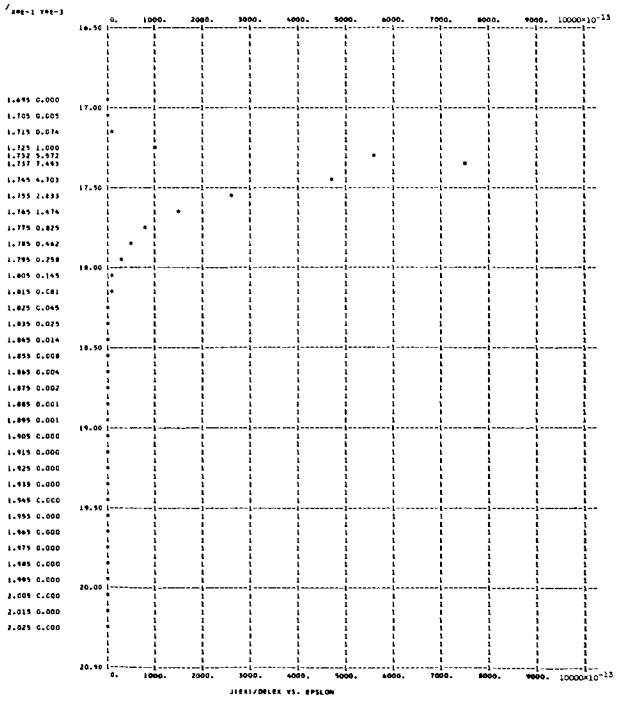
NEM = 0.50836430E 23 NEE = 0.55121710E 01 VXAV = 0.20946876E 09 KEXAV = 0.12474892E 02 KEXFL = 0.26133597E 10

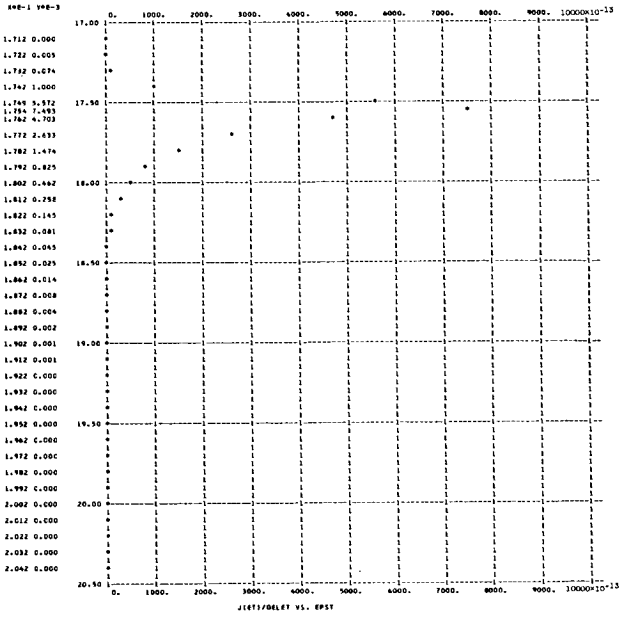
J = 0.184971E-09 KETAV= 0.126472E 02 KETFL= 0.264946E 10 TZERO = 0.978441E 05 TD = 0.133809E 04

Figure 3. - Continued.







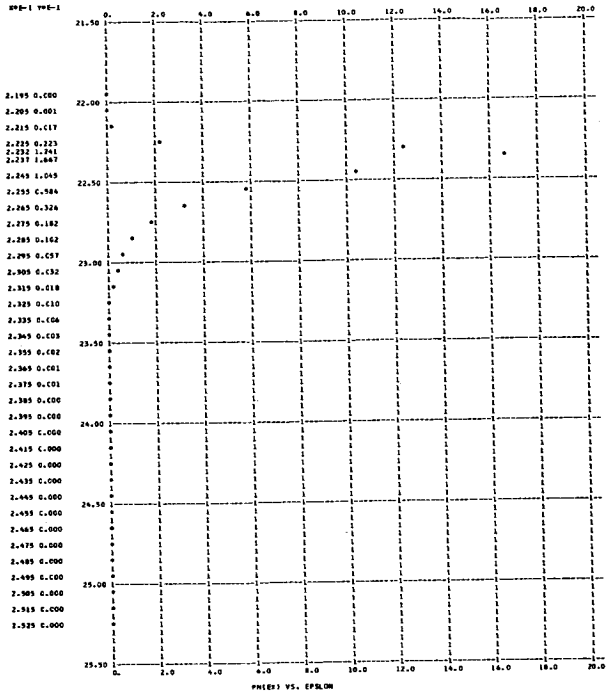


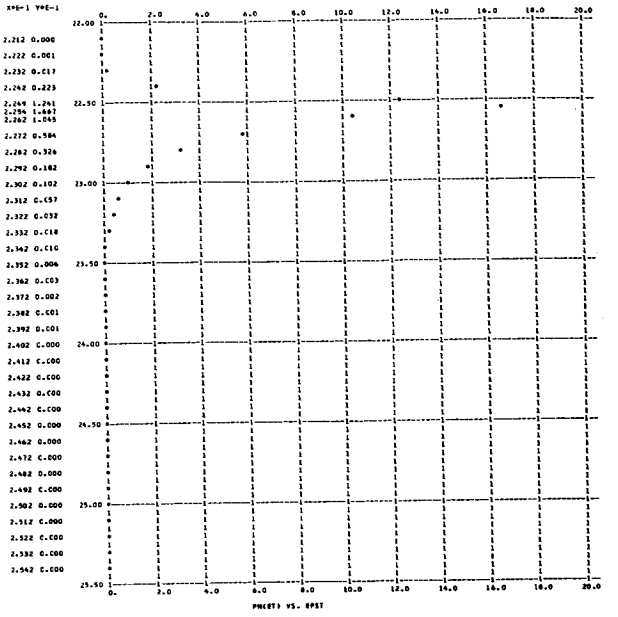
T = 0.20000000E 04 E = 0.31622783E 07 PHI = 8.00 AMU = 10.00 EVMAX = 17.3395

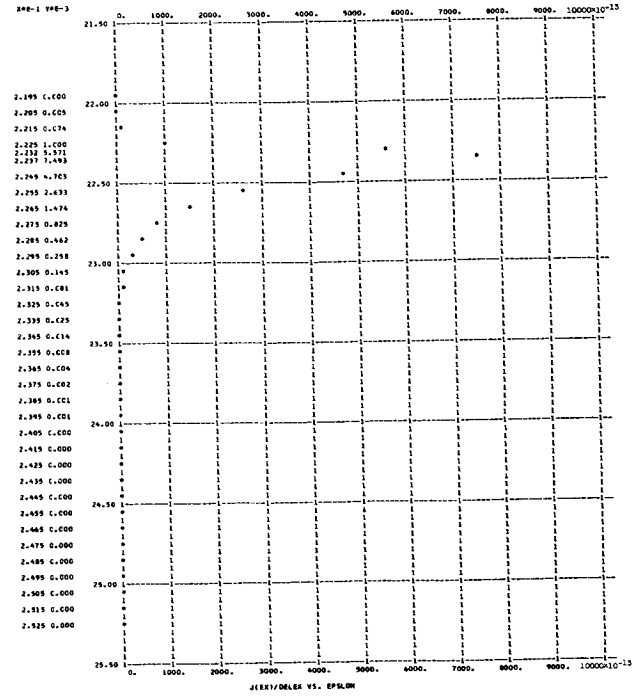
NEM = 0.14370953E 24 NEE = 0.46571887E 01 VXAV = 0.24792351E 09 KEXAV = 0.17475241E 02 KEXFL = 0.43327435E 10

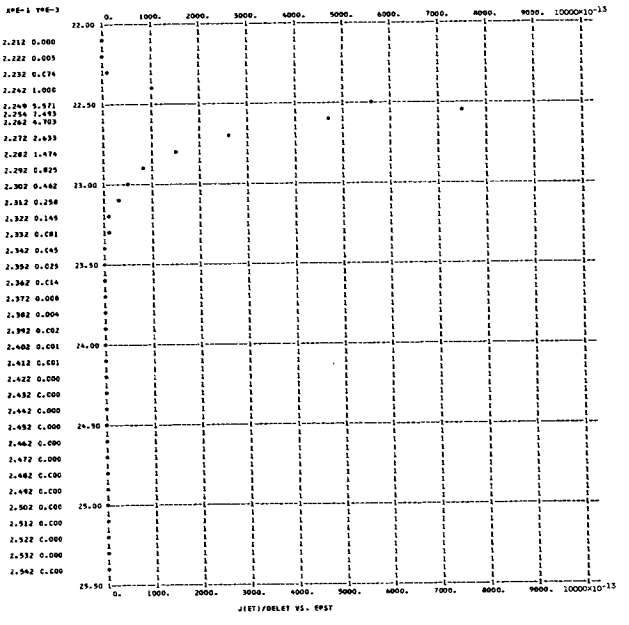
J = 0.184971E-09 KETAV= 0.176476E 02 KETFL= 0.437547E 10 TZERO = 0.136529E 06 TD = 0.133672E 04

Figure 3. - Continued.







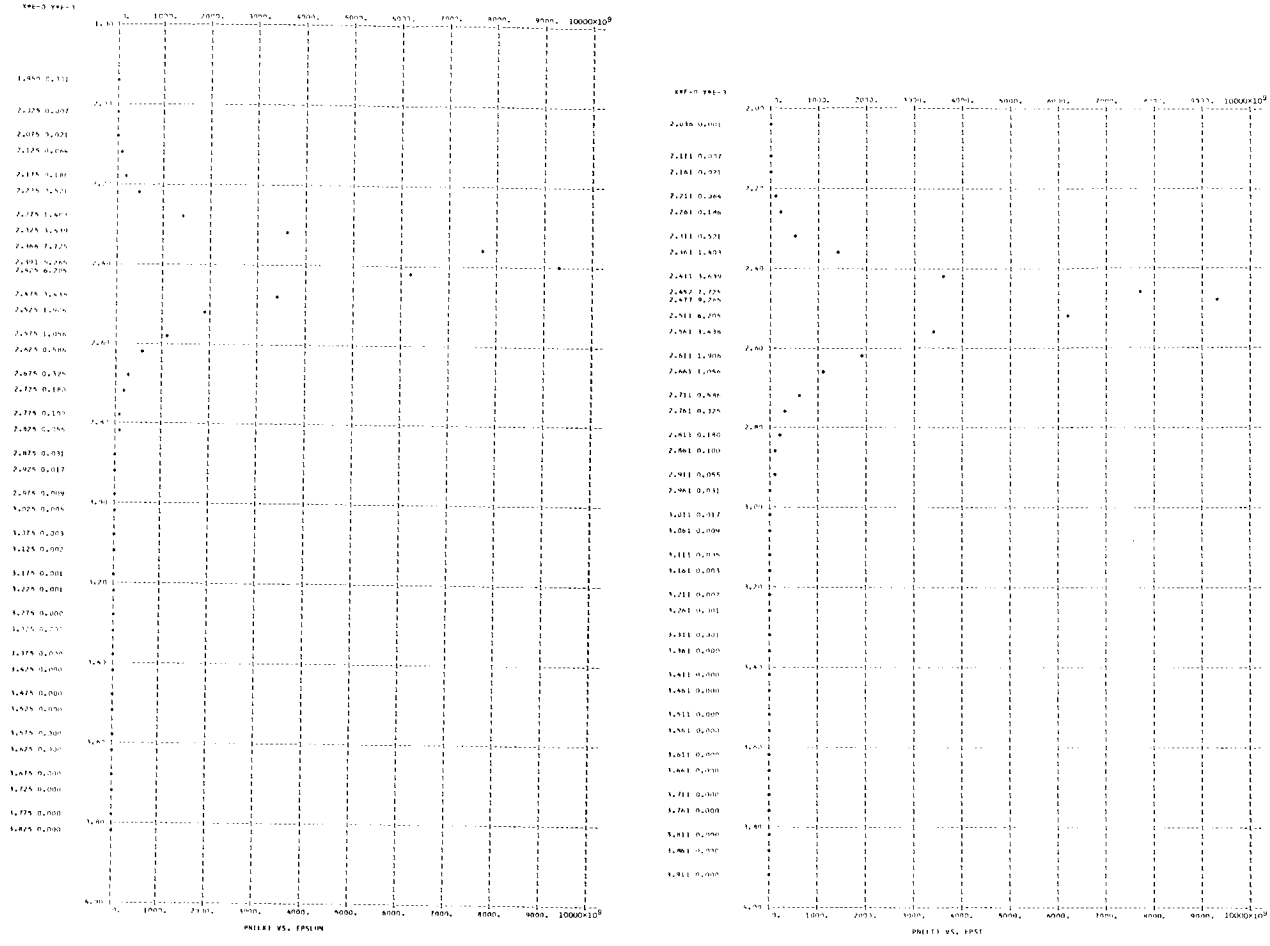


T = 0.20000000E 04 E = 0.31622783E 07 PHI = 8.00 AMU = 15.00 EVMAX = 22.3395

NEM = 0.26399449E 24 NEE = 0.41065697E 01 VXAV = 0.28116570E 09 KEXAV = 0.22475438E 02 KEXFL = 0.63195173E 10

J = 0.184971E-09 KETAV= 0.226478E 02 KETFL= 0.636797E 10 TZERO = 0.175212E 06 TD = 0.133599E 04

Figure 3. - Continued.

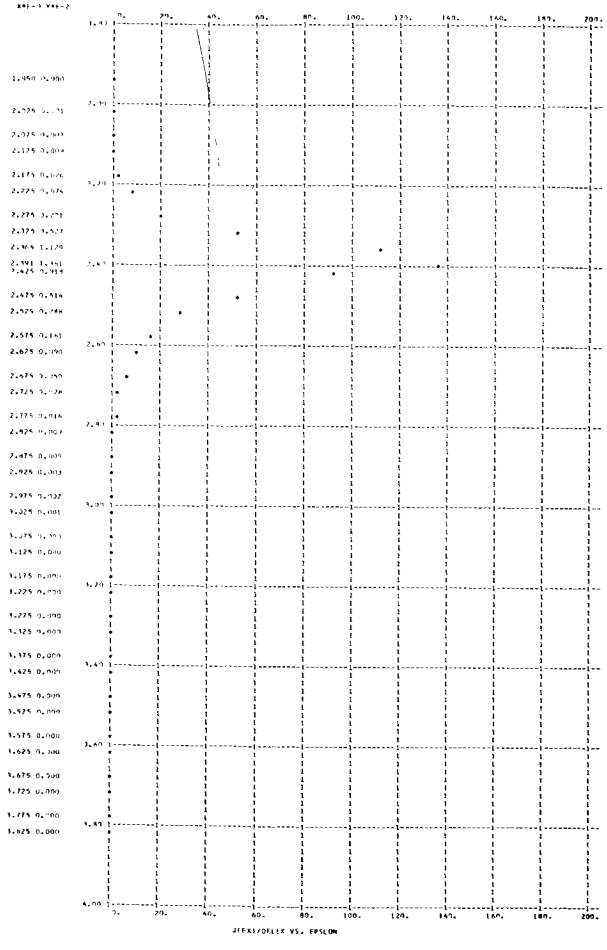


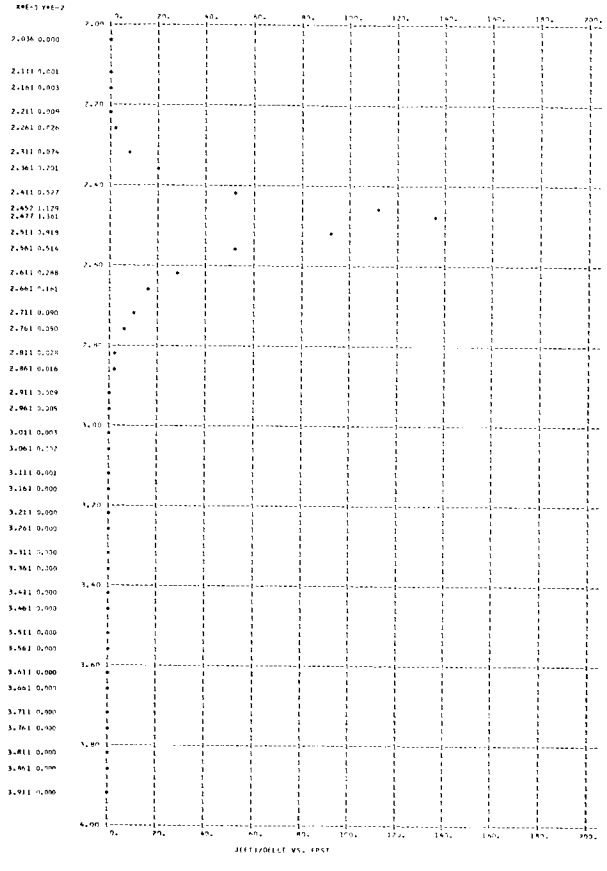
T = 1.00000000E 03 E = 0.31622783E 07 PHI = 2.00 AMU = 1.00 EVMAX = 2.3821

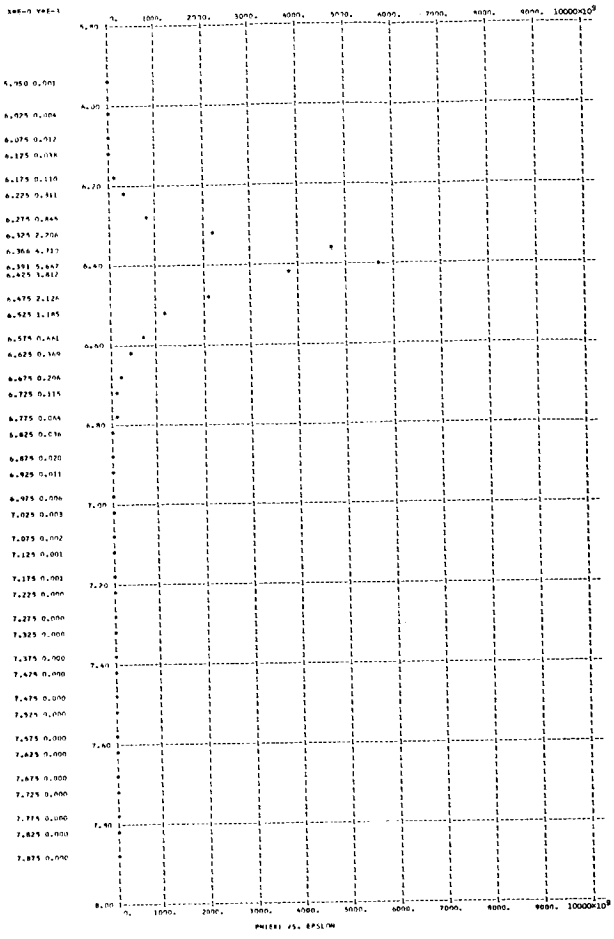
NEM = 0.45427783E 22 NEE = 0.14019271E 13 VXAV = 0.92136830E 08 KEXAV = 0.24144920E 01 KEXFL = 0.22265217E 09

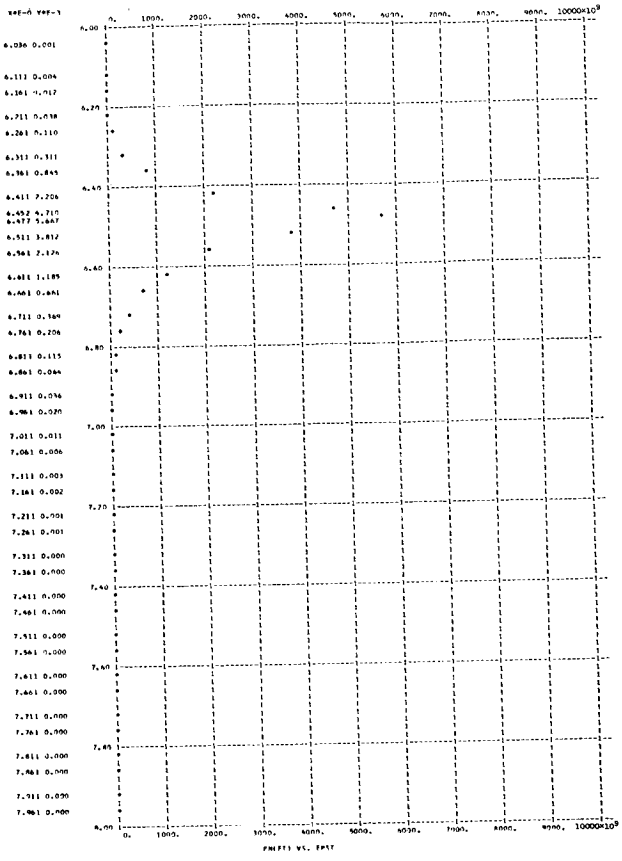
J = 0.206929E 02 KETAV= 0.250066E 01 KETFL= 0.230592E 09 TZERO = 0.193461E 05 TD = 0.674508E 03

Figure 3. - Continued.







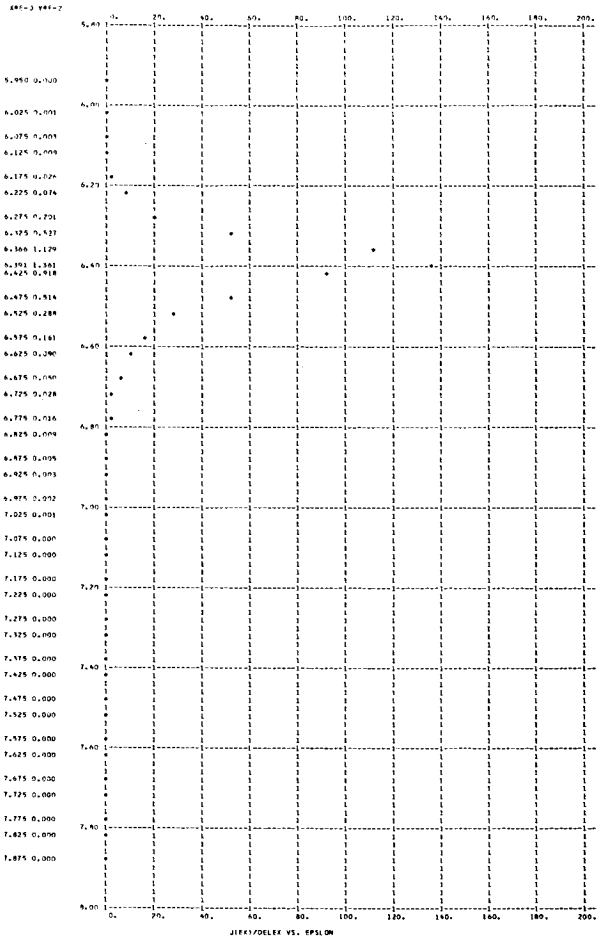


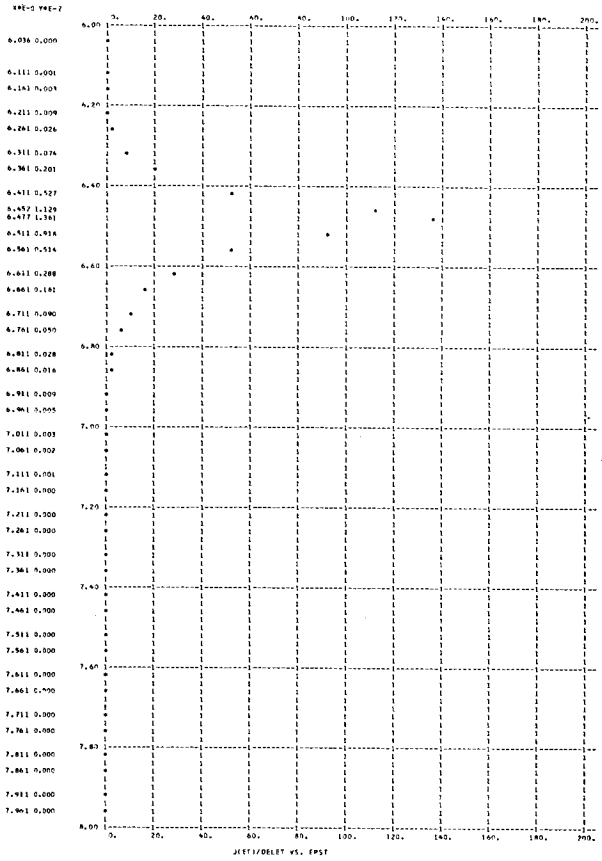
T = 1.00000000E 03 E = 0.31622783E 07 PHI = 2.00 AMU = 5.00 EVMAX = 6.3821

NEM = 0.50780506E 23 NEE = 0.85986847E 12 VXAV = 0.15021811E 09 KEXAV = 0.64157557E 01 KEXFL = 0.96388033E 09

J = 0.206927E 02 KETAV= 0.650193E 01 KETFL= 0.976825E 09 TZERO = 0.503015E 05 TD = 0.669680E 03

Figure 3. - Continued.


0.
20.
40.
60.
80.
100.
120.
140.
160.
180.
200.
JIEK1/DELEX VS. EPSLON


0.
20.
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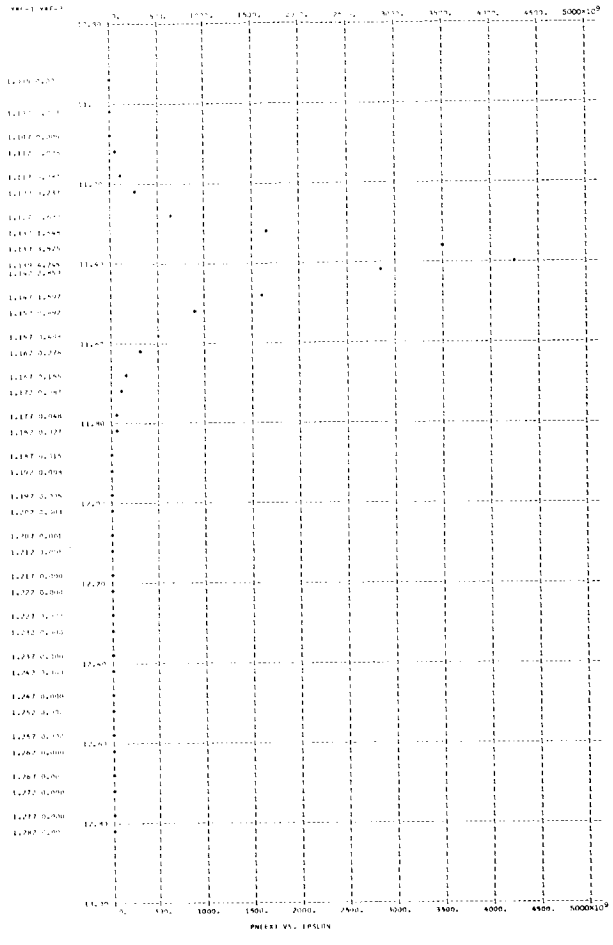
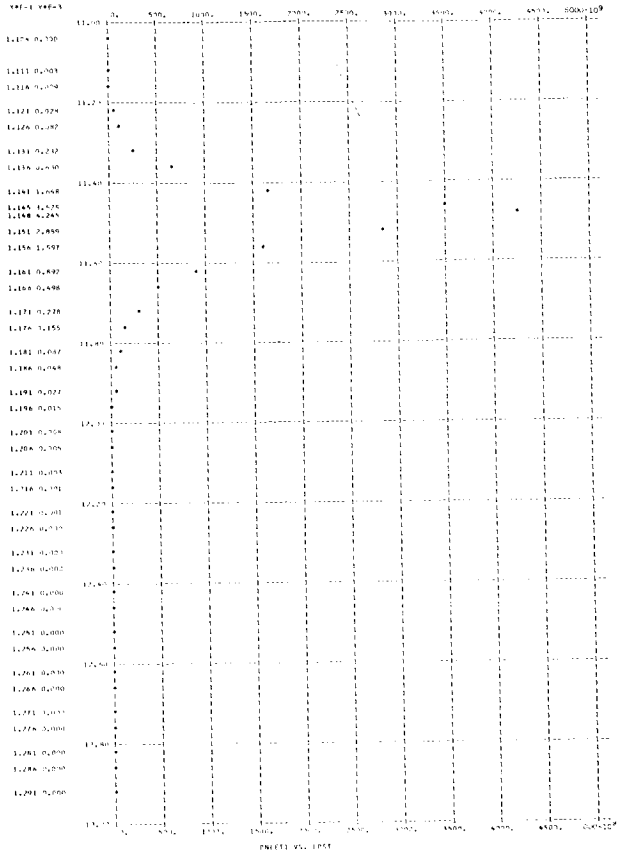
JEET1/DELET VS. EPST



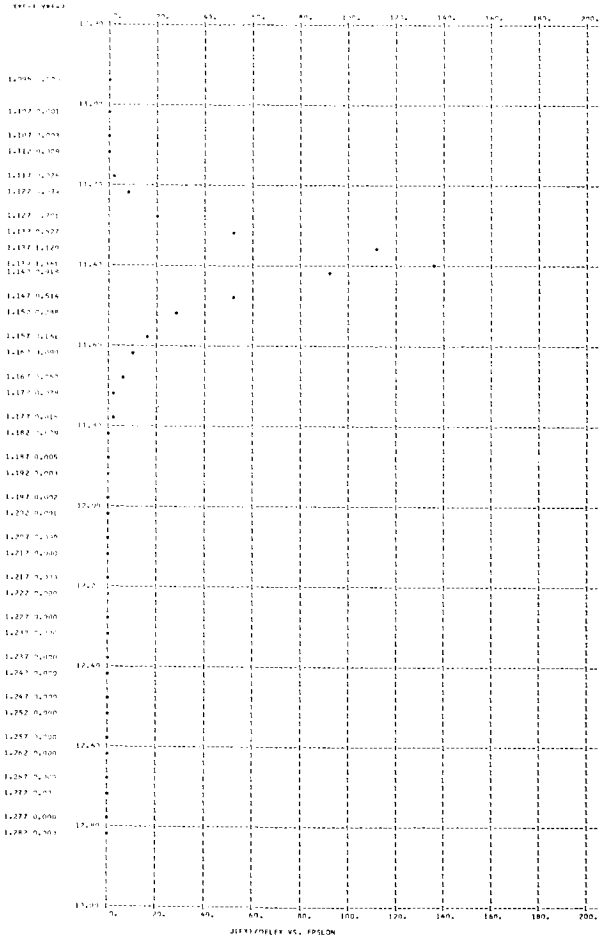


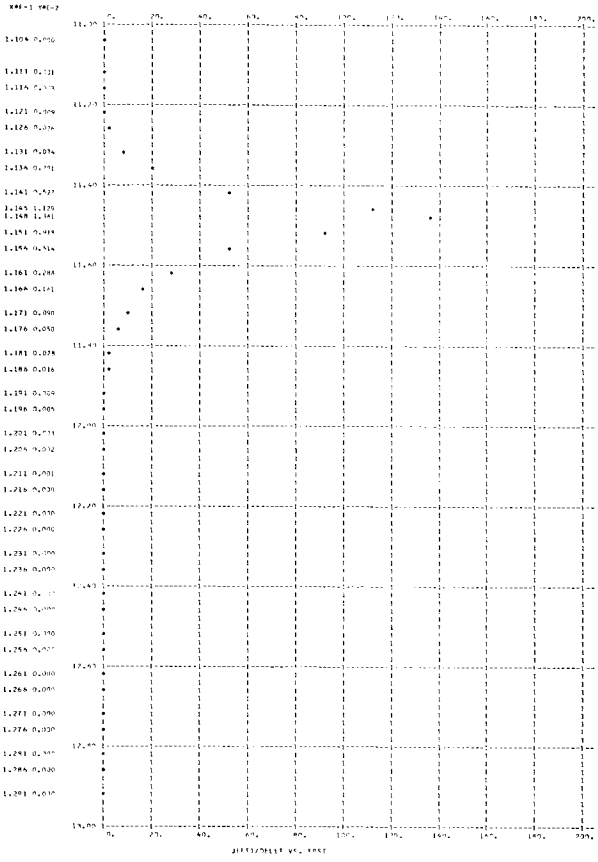
T = 1.00000000E 03 E = 0.31622783E 07 PHI = 2.00 AMU = 10.00 EVMAX = 11.3821

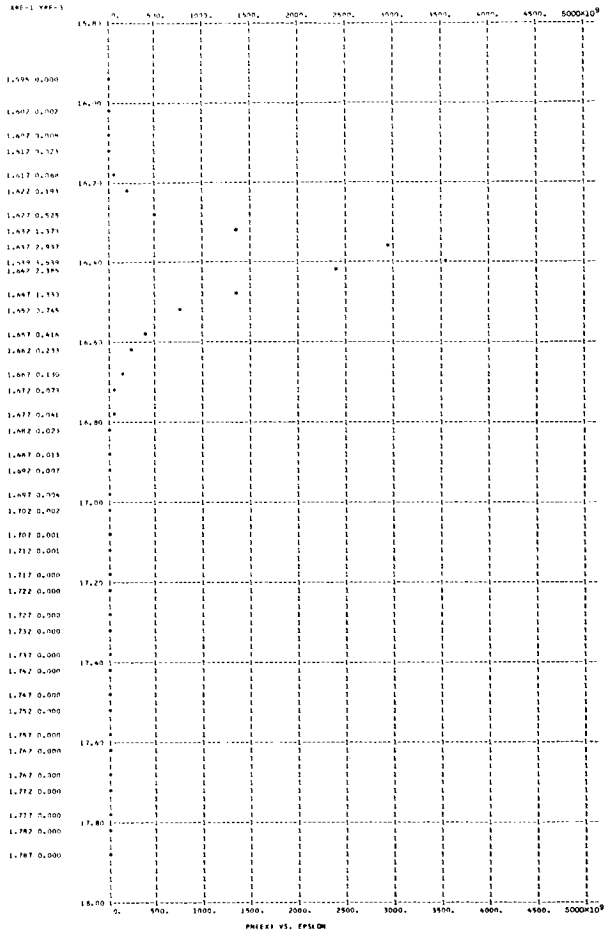
NEM = 0.14367002E 24 NEE = 0.64459702E 12 VXAV = 0.20038547E 09 KEXAV = 0.11416096E 02 KEXFL = 0.22877081E 10

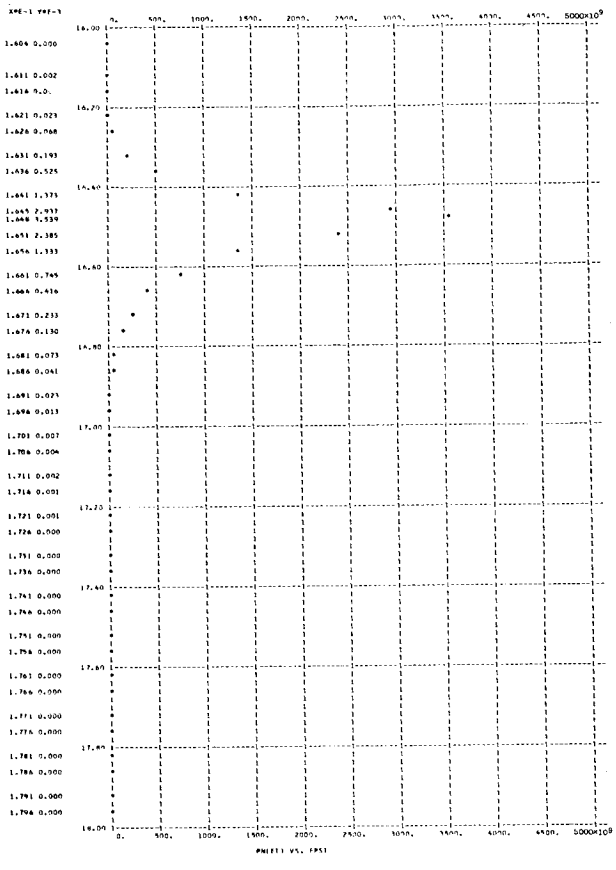
J = 0.206927E 02 KETAV= 0.115023E 02 KETFL= 0.230498E 10 TZERO = 0.889862E 05 TD = 0.668358E 03

Figure 3. - Continued.







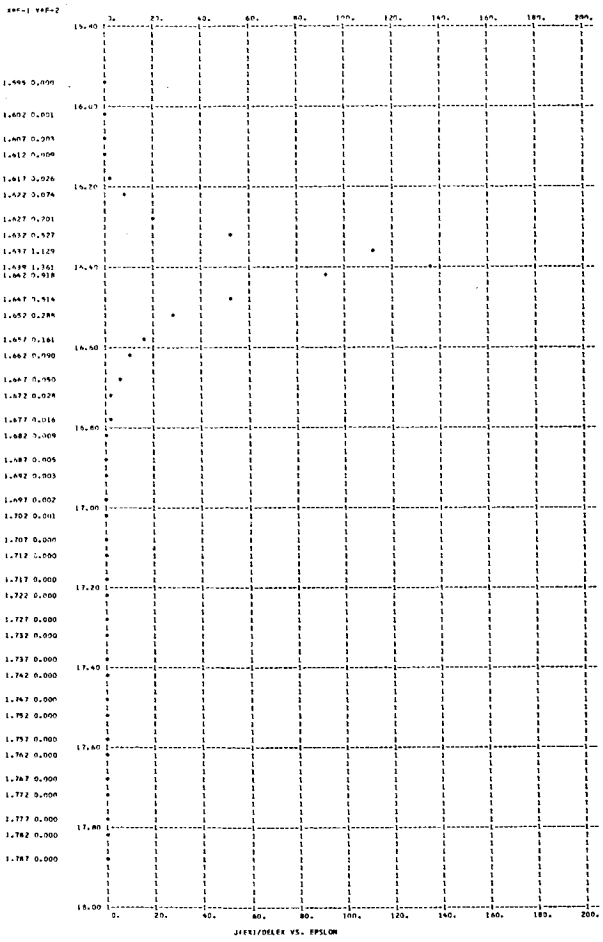


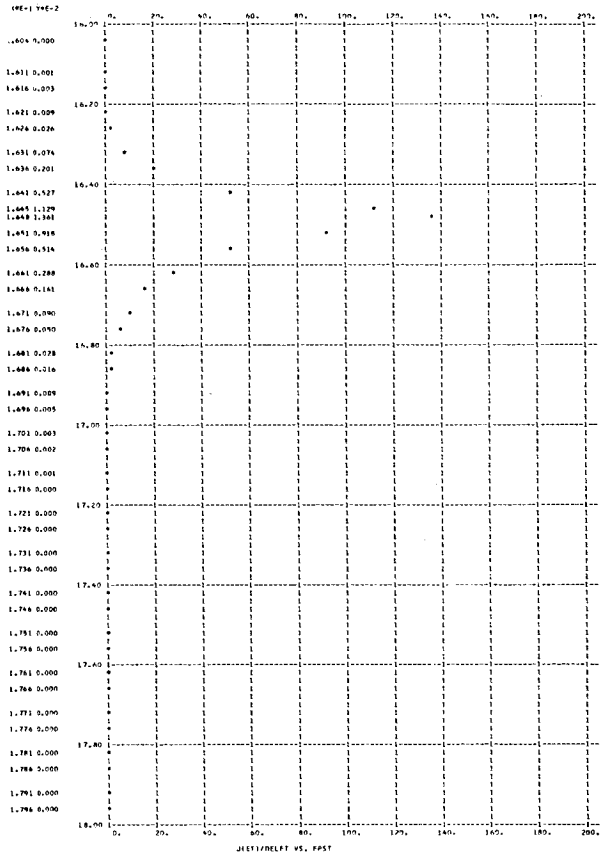
T = 1.00000000E 03 E = 0.31622783E 07 PHI = 2.00 AMU = 15.00 EVMAX = 16.3821

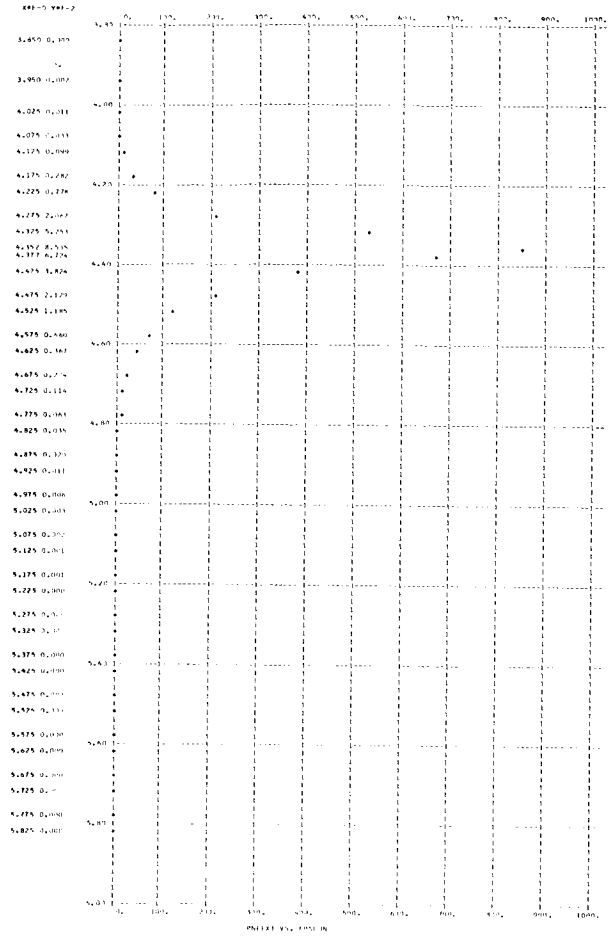
NEM = 0.26396224E 24 NEE = 0.53753544E 12 VXAV = 0.24029585E 09 KEXAV = 0.16416228E 02 KEXFL = 0.39448259E 10

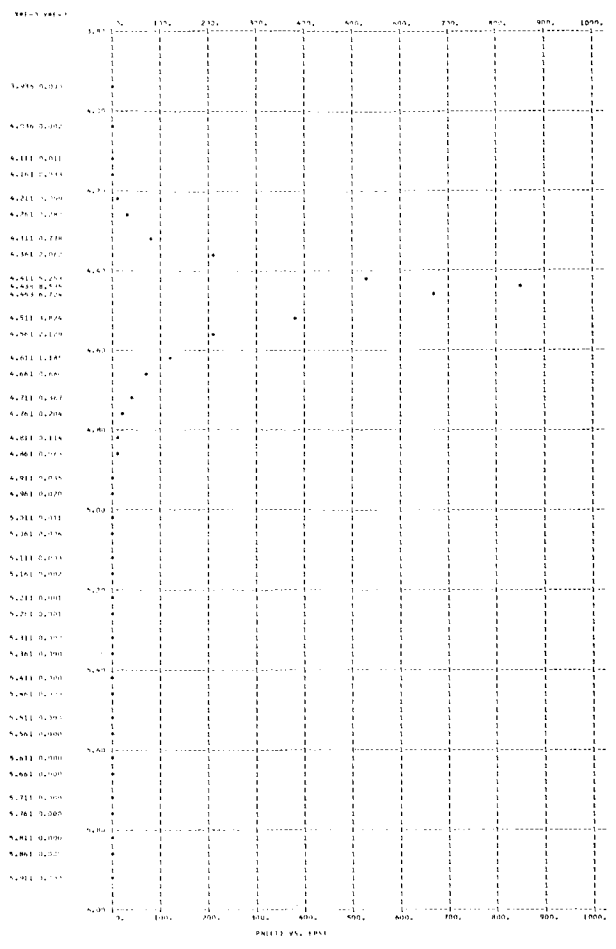
J = 0.206926E 02 KETAV= 0.165024E 02 KETFL= 0.396553E 10 TZERO = 0.127669E 06 TD = 0.667848E 03

Figure 3. - Continued.


JIEXI/DELEX VS. EPSLON


JIEYI/DELFT VS. FPST



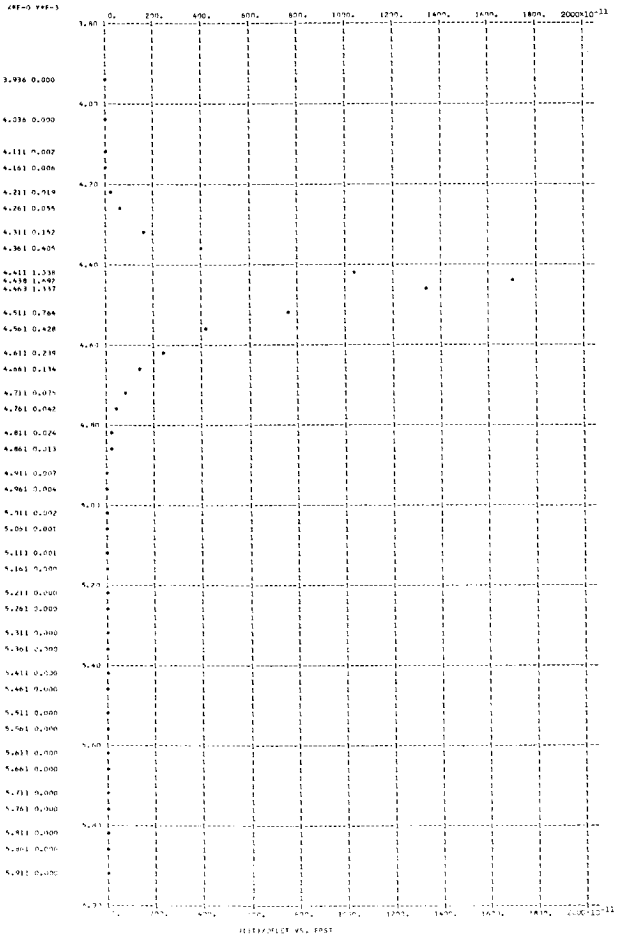


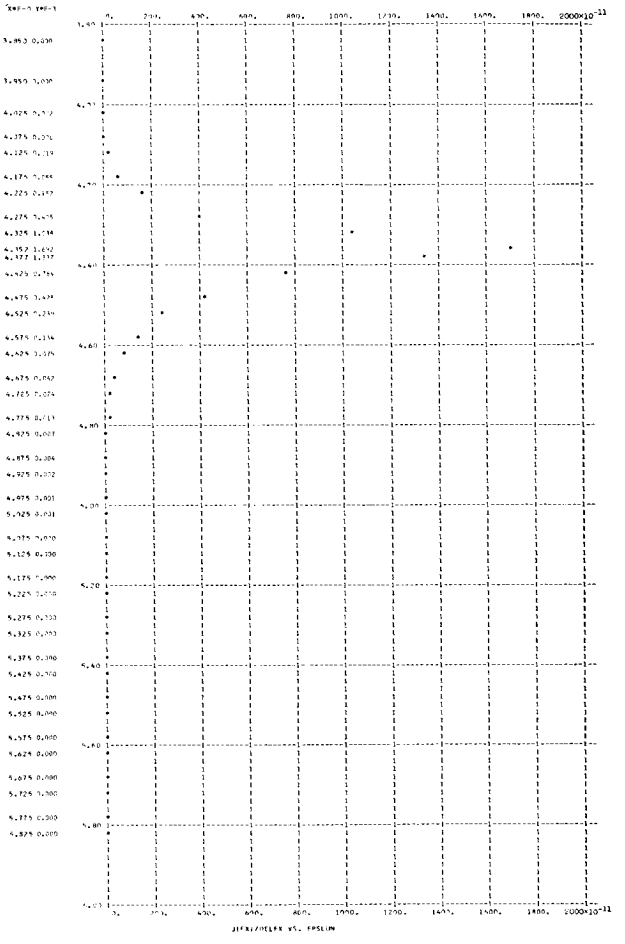
T = 1.00000000E 03 E = 0.31622783E 07 PHI = 4.00 AMU = 1.00 EVMAX = 4.3537

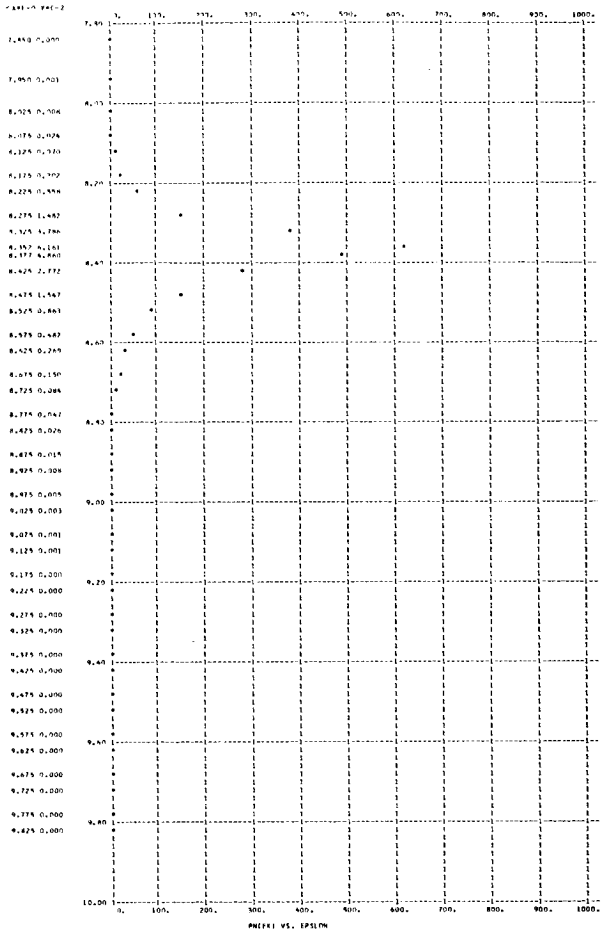
NEM = 0.45427783E 22 NEE = 0.12002711E 03 VXAV = 0.12421287E 09 KEXAV = 0.43869849E 01 KEXFL = 0.54506171E 09

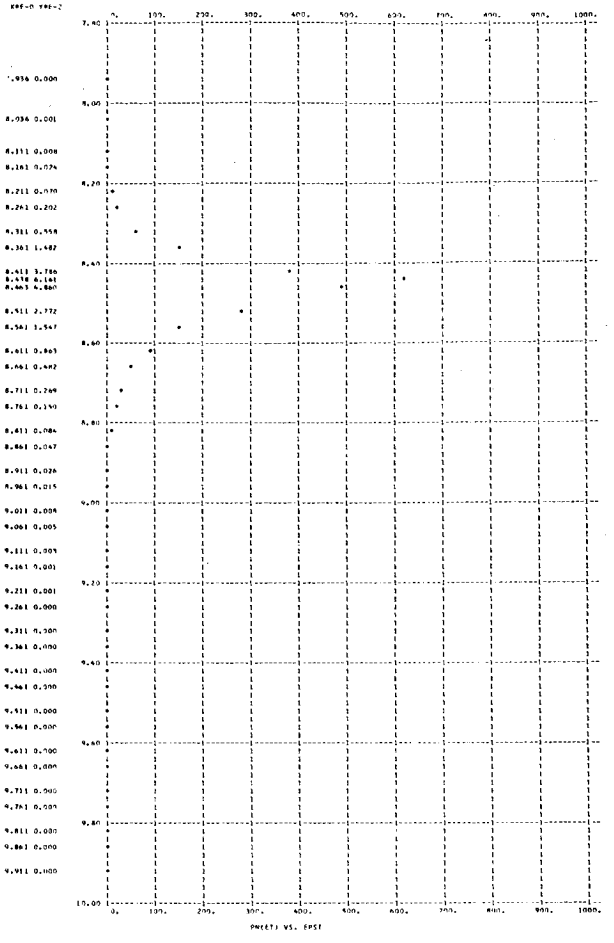
J = 0.238841E-08 KETAV= 0.447316E 01 KETFL= 0.555765E 09 TZERO = 0.346061E 05 TD = 0.671051E 03

Figure 3. - Continued.









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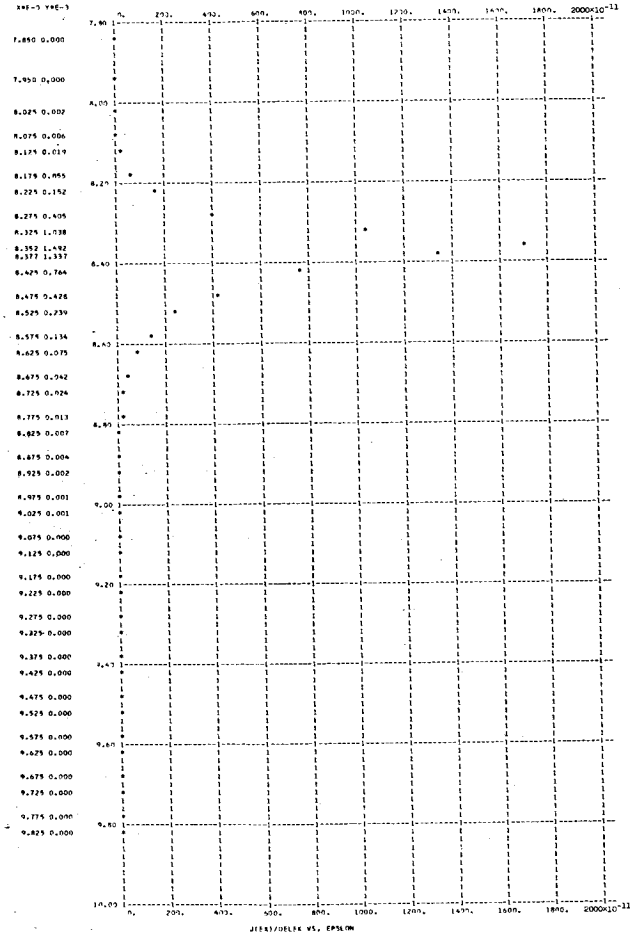
J = 0.238840E-08 KETAV= 0.847370E 01 KETFL= 0.145554E 10 TZERO = 0.655559E 05 TD = 0.668976E 03

Figure 3. - Continued.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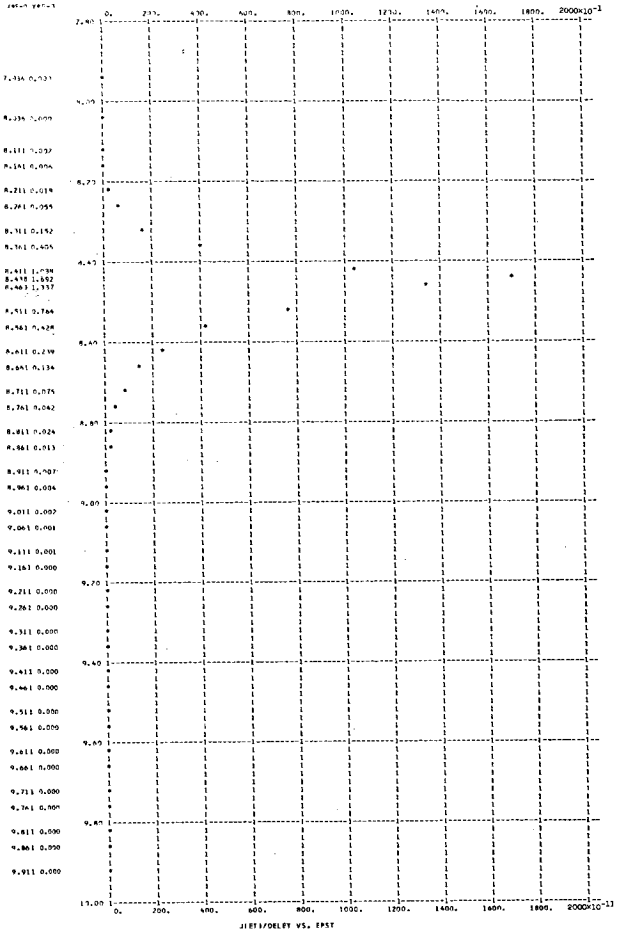
JIEE3/DELEK VS. EPSLON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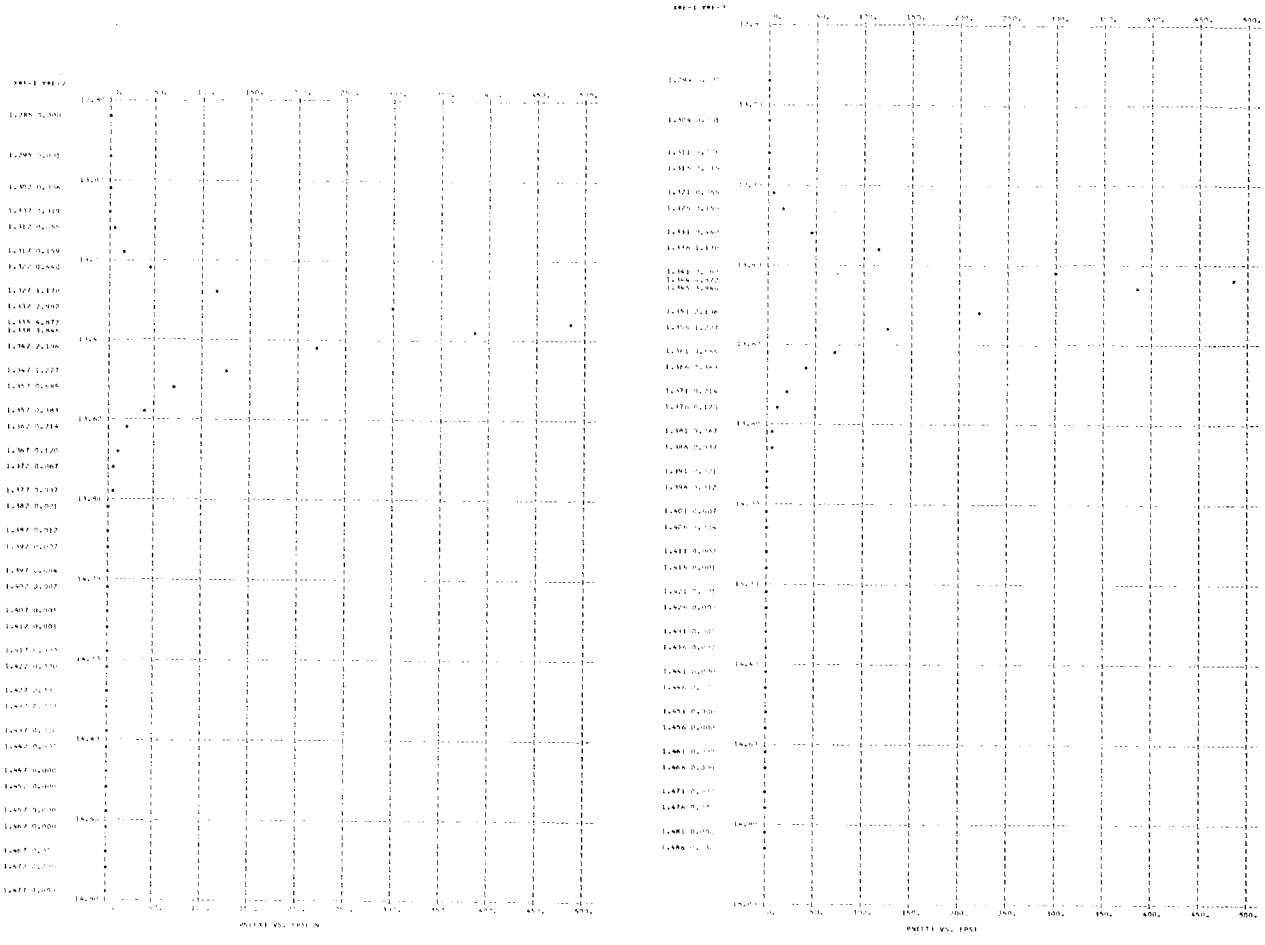
JIET3/DELET VS. EPST



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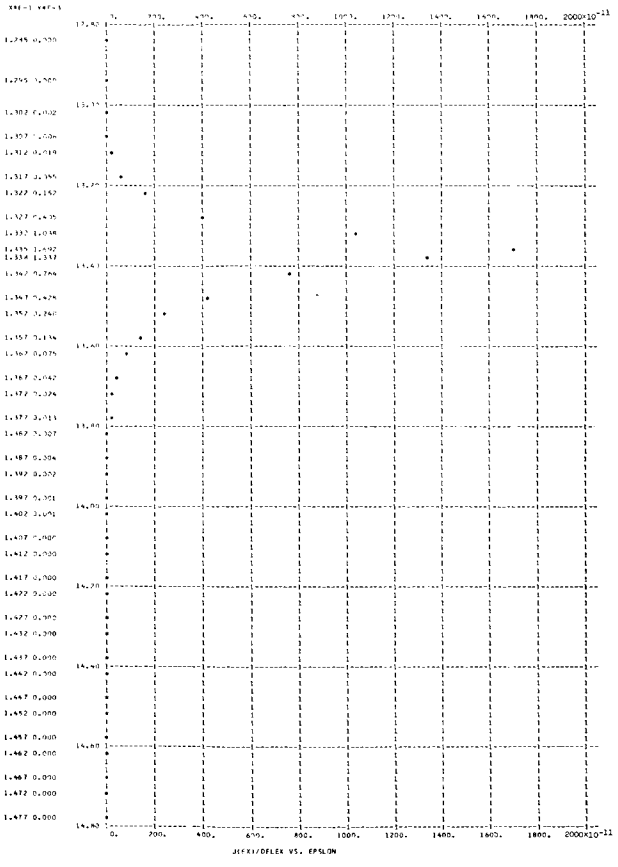
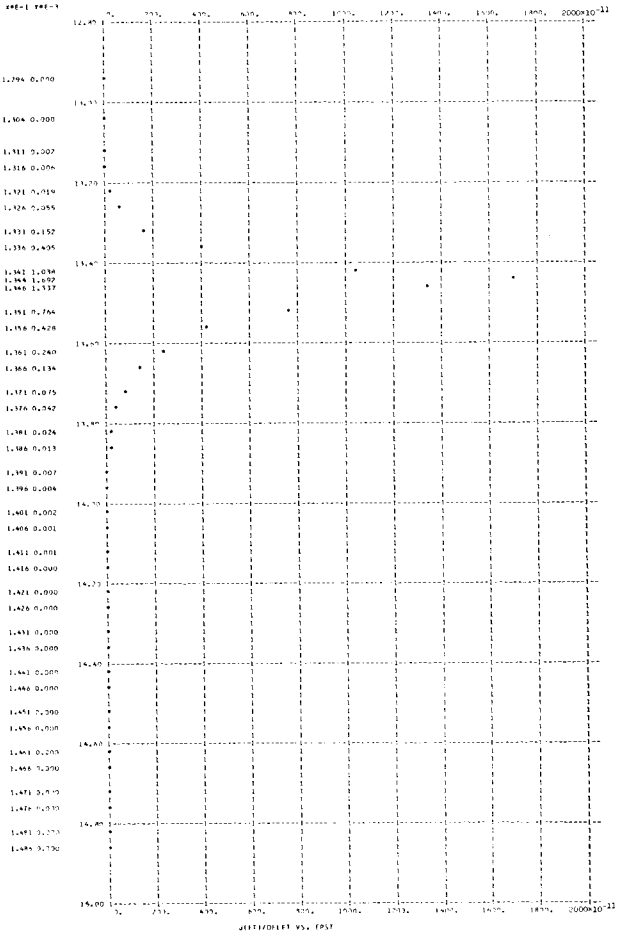
NEM = 0.14367002E 24 NEE = 0.68704186E 02 VXAV = 0.21700130E 09 KEXAV = 0.13387749E 02 KEXEL = 0.29052407E 10

J = 0.238841E-08 KETAV= 0.134739E 02 KETEL= 0.292394E 10 TZERO = 0.1042405 06 TD = 0.668102E 03

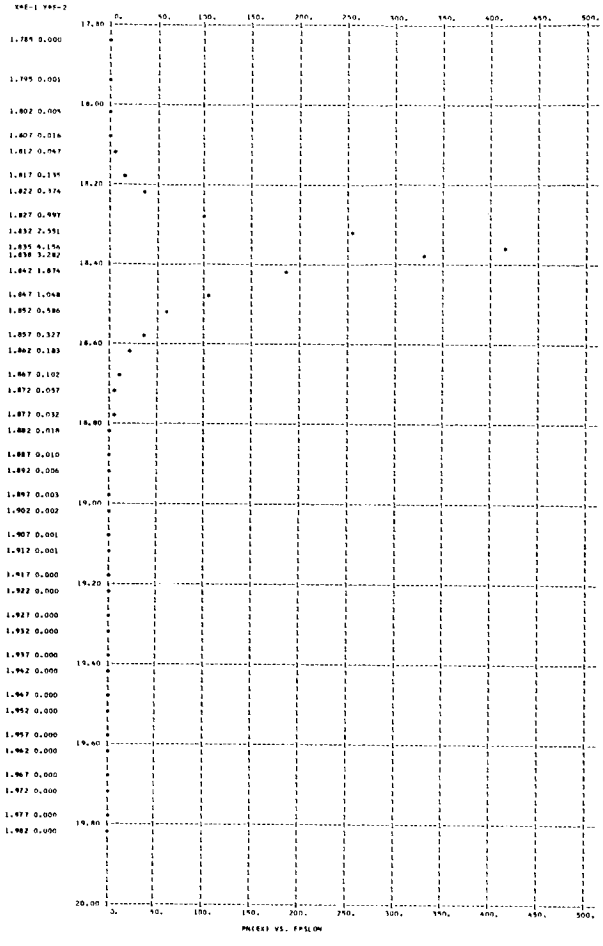
Figure 3. - Continued.



JEXP1/DELEX VS. EPSLON



JEXP1/DELEX VS. EPSP



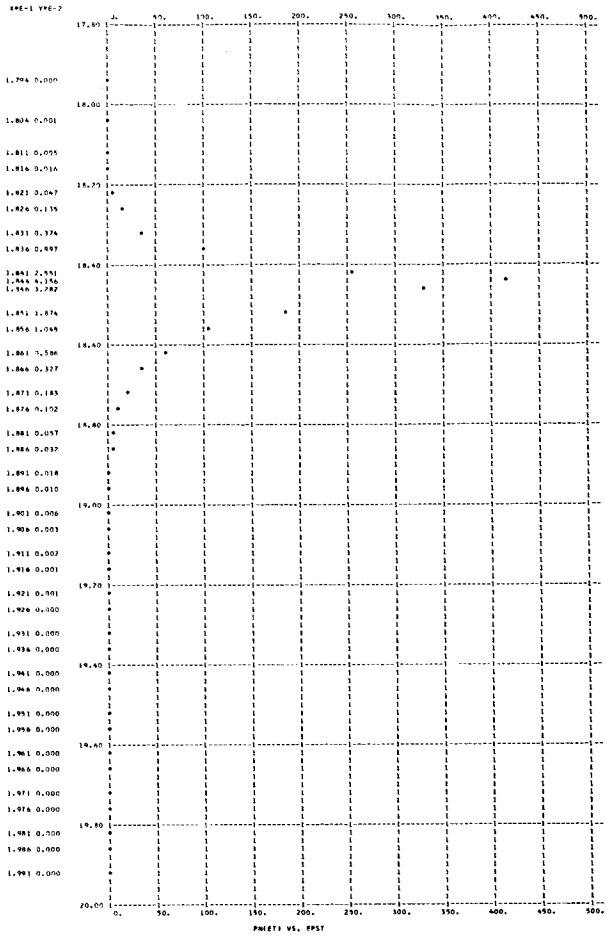


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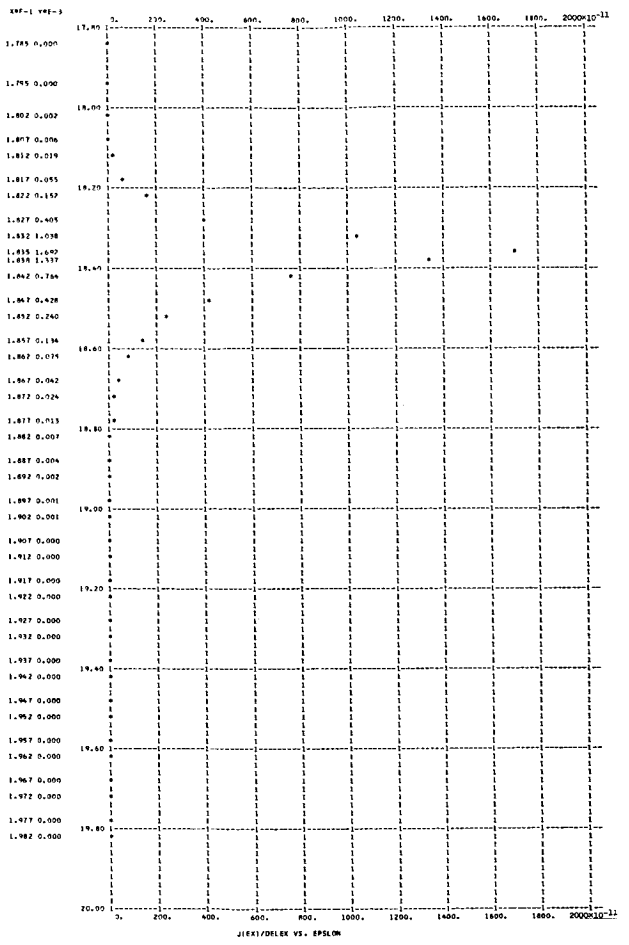
Figure 3. - Continued.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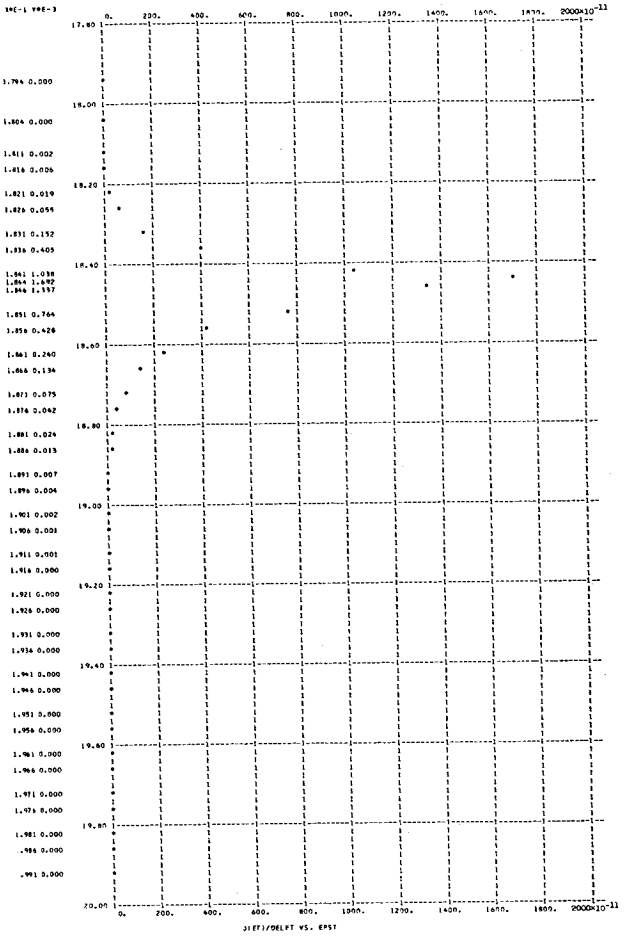
J(EX)/DELEK VS. EPSLON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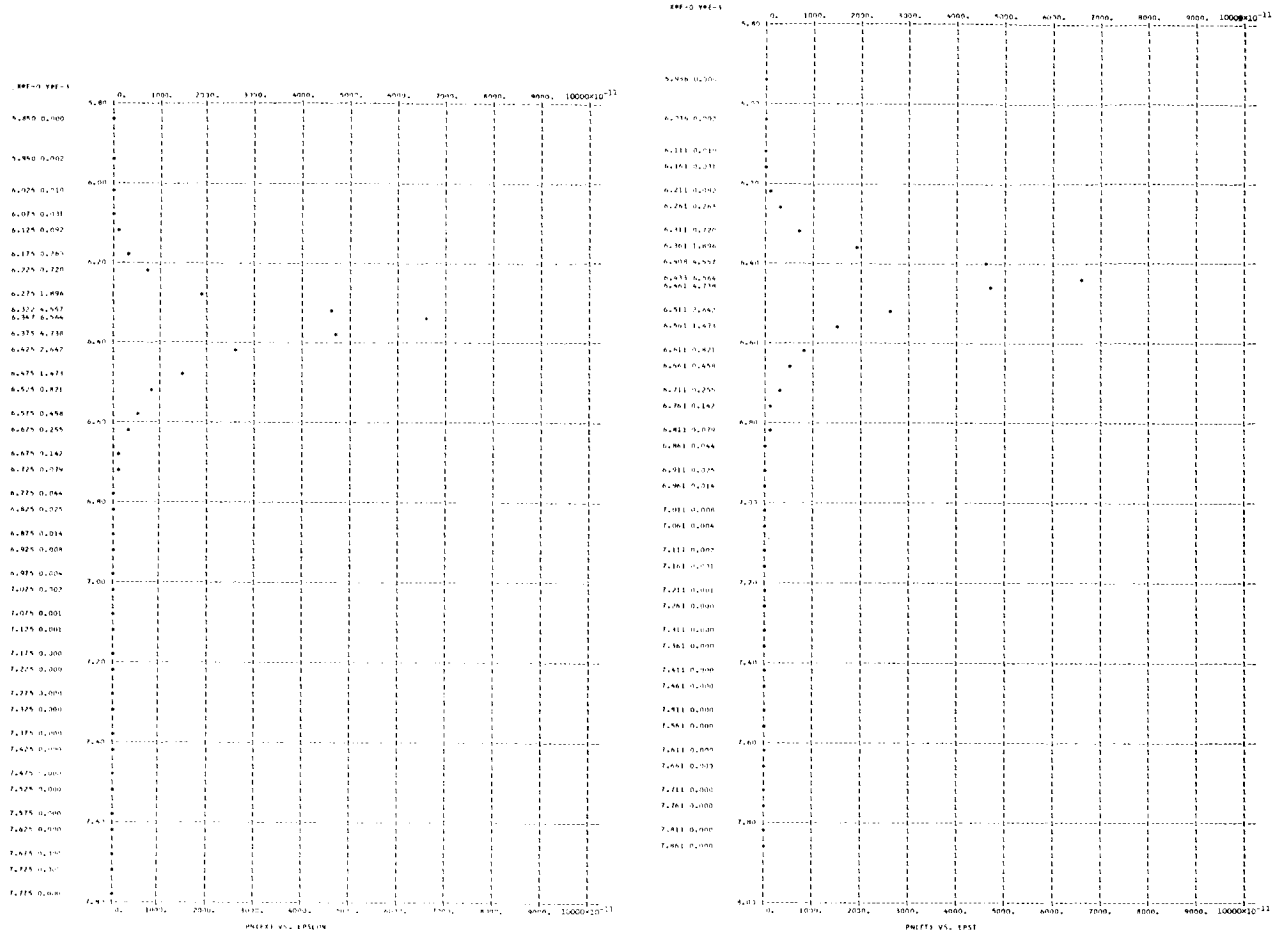
J(EF)/DELFT VS. EPST



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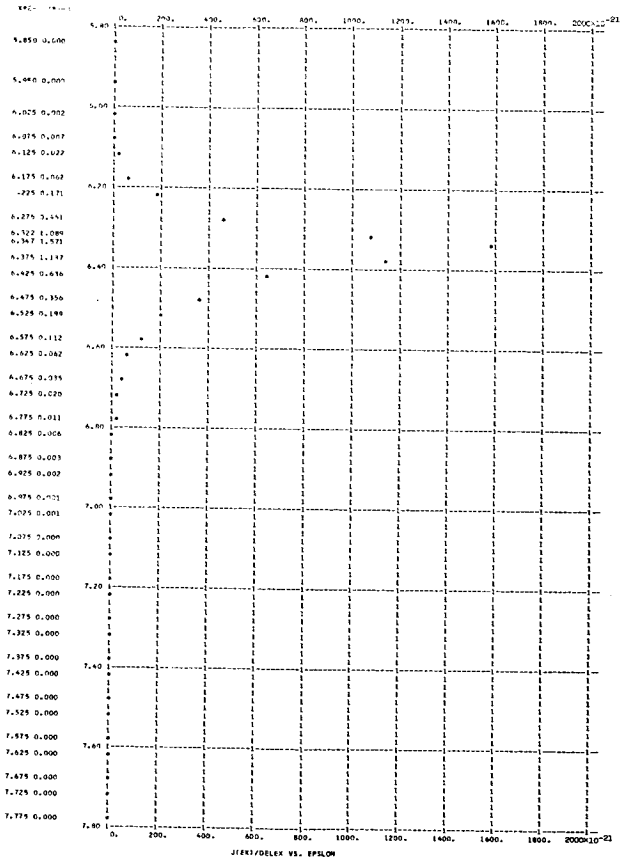
NEM = 0.45427783E 22 NEE = 0.92581886E-08 VXAV = 0.14977374E 09 KEXAV = 0.63778587E 01 KEXFL = 0.95535379E 09

J = 0.222139E-18 KETAV= 0.646403E 01 KETFL= 0.968260E 09 TZERO = 0.500083E 05 TD = 0.669698E 03

Figure 3. - Continued.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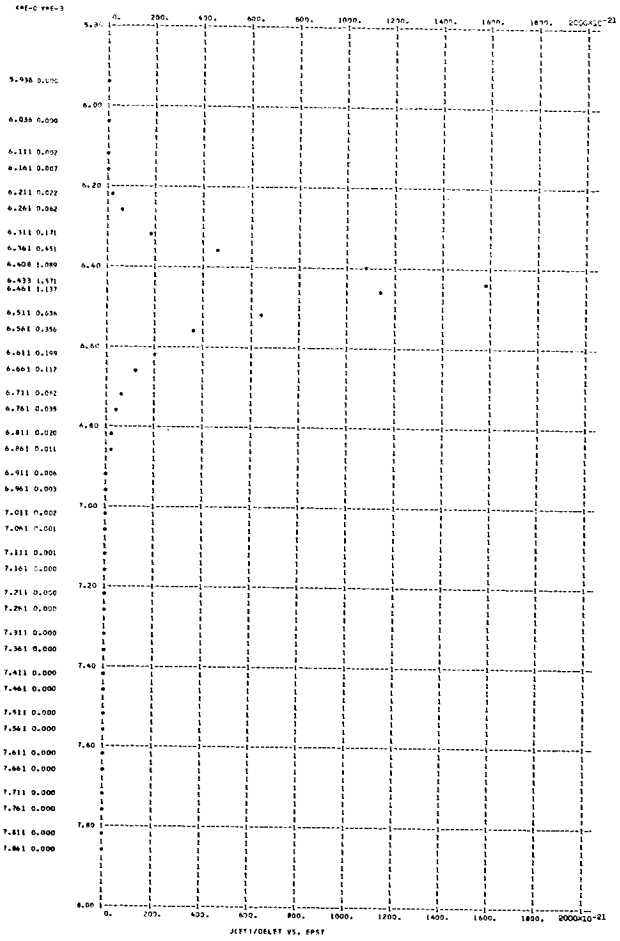
JIEKI/DELEX VS. EPSLON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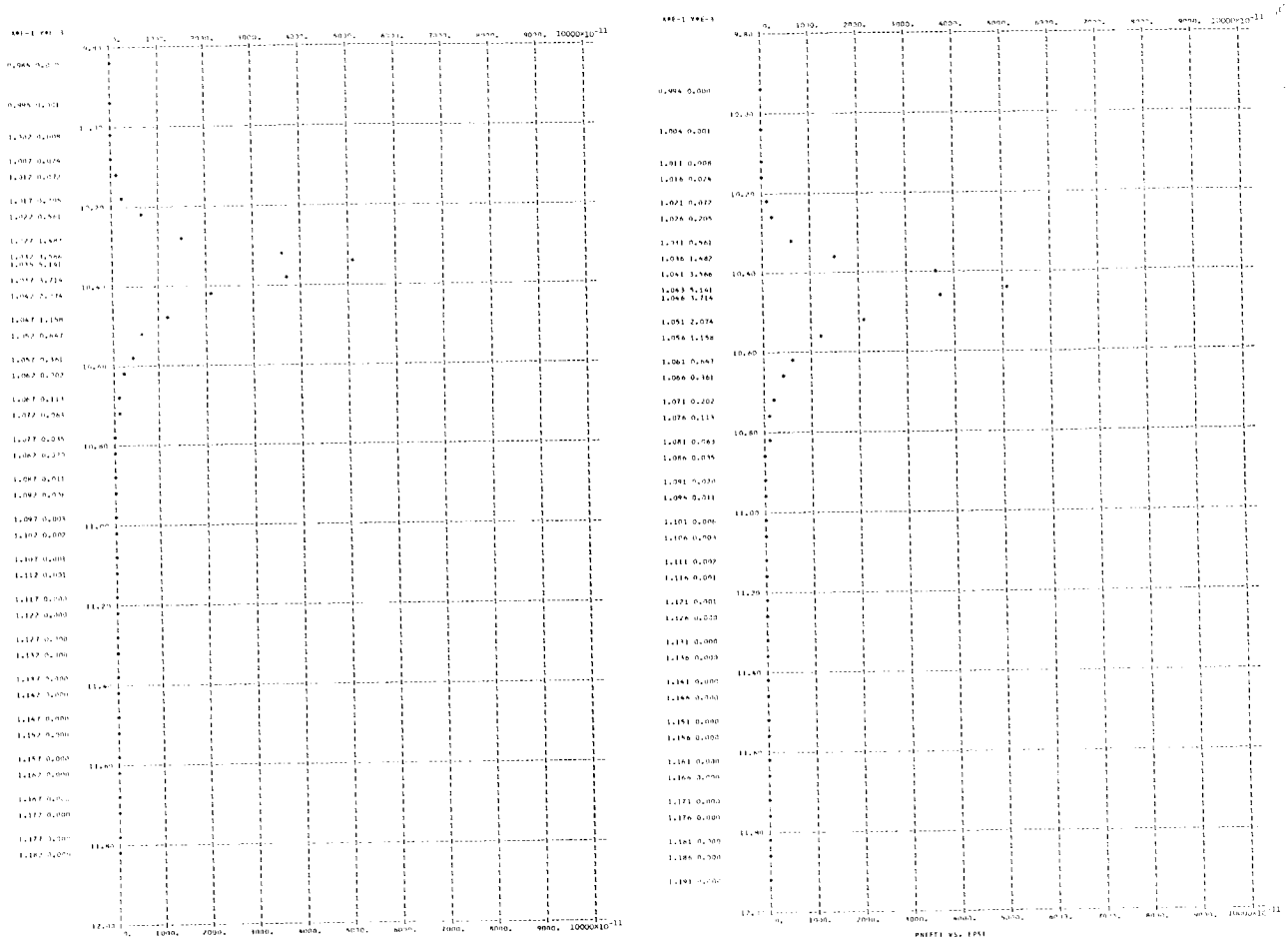
JIEFI/DELEF VS. EPSF



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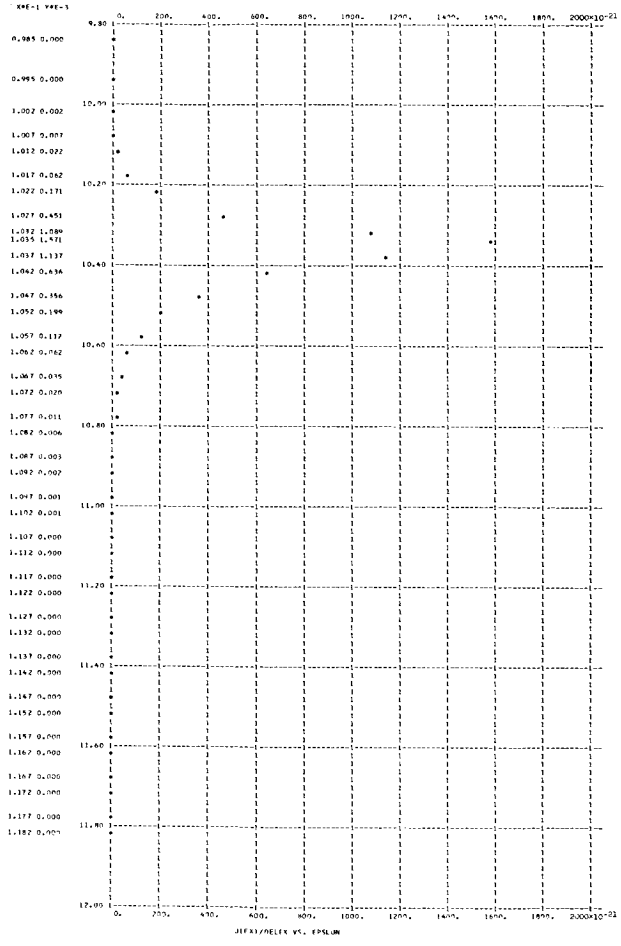
NEM = 0.50780506E 23 NEE = 0.72576282E-08 VXAV = 0.19105864E 09 KEXAV = 0.10378159E 02 KEXFL = 0.19829302E 10

J = 0.222139E-18 KETAV= 0.104643E 02 KETFL= 0.199939E 10 TZERO = 0.809563E 05 TO = 0.668537E 03

Figure 3. - Continued.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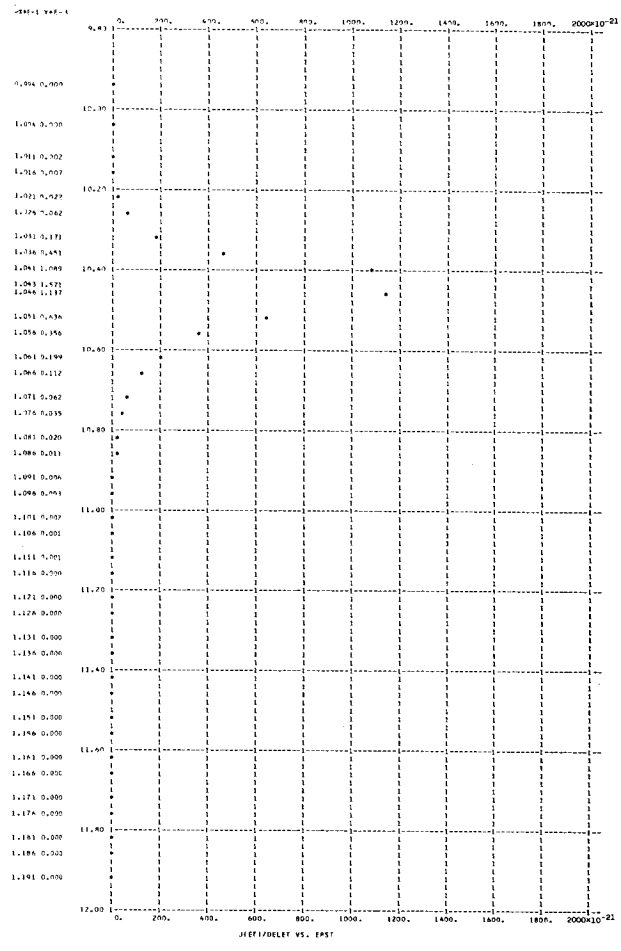
JEFX1/DELEX VS. EPSLON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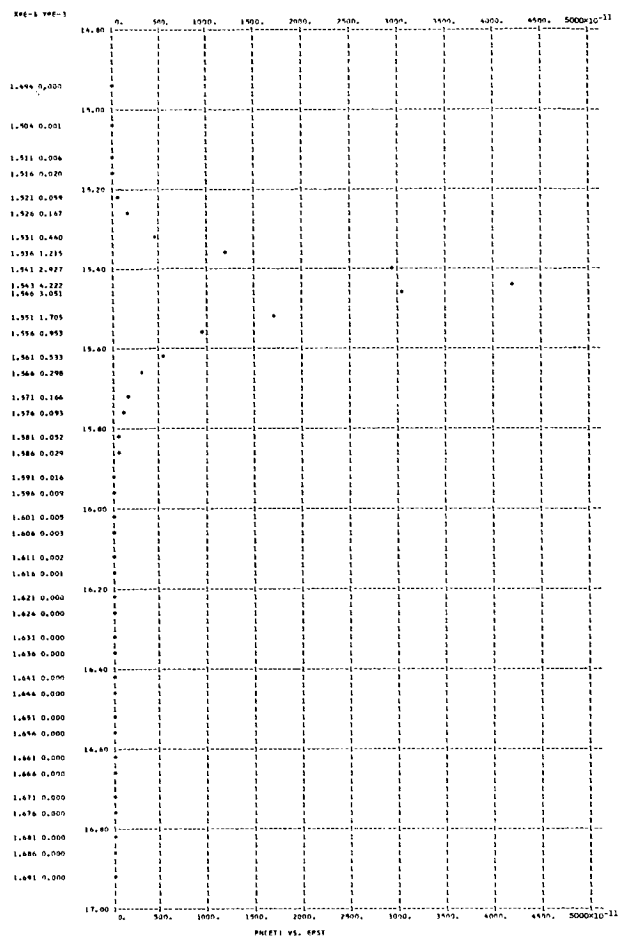
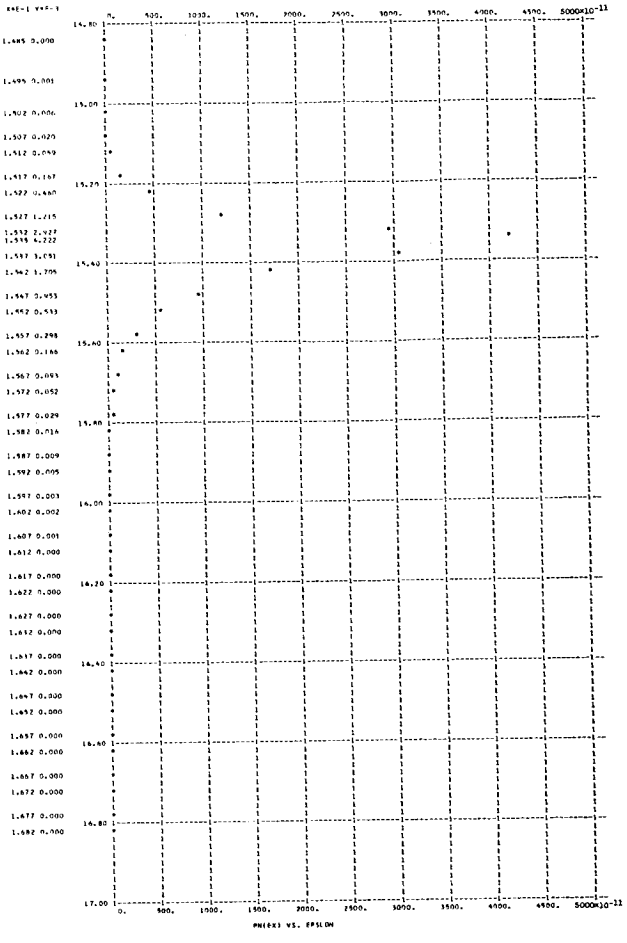
JEFT1/DELET VS. EPST



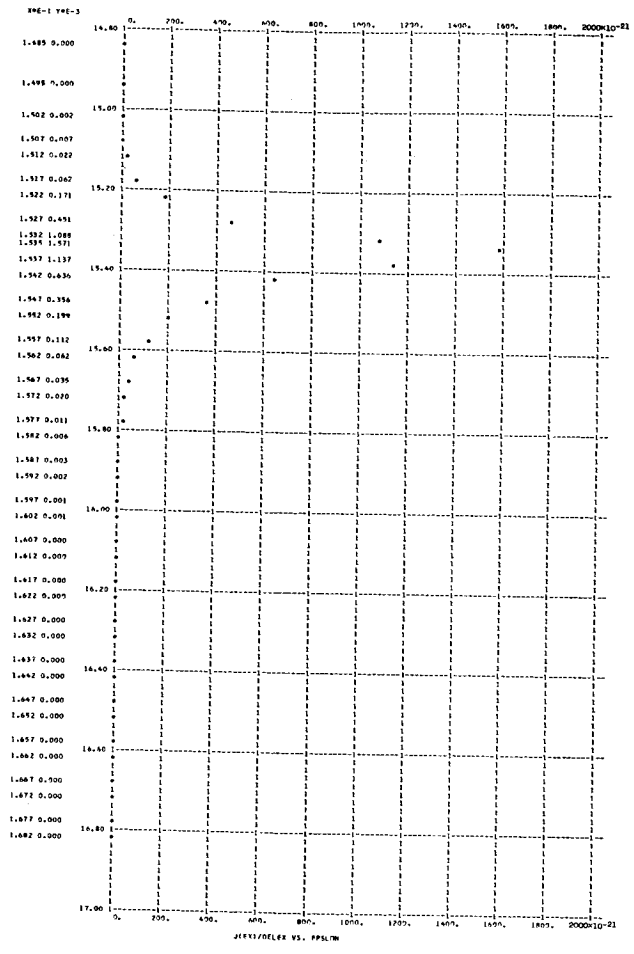


T = 1.00000000E 03 E = 0.31622783E 07 PHI = 6.00 AMU = 10.00 EVMAX = 15.3442

NEM = 0.14367002E 24 NEE = 0.59620615E-08 VXAV = 0.23257536E 09 KEXAV = 0.15378317E 02 KEXFL = 0.35766941E 10

J = 0.222138E-18 KETAV= 0.154645E 02 KETFL= 0.359674E 10 TZERO = 0.119639E 06 TD = 0.667919E 03

Figure 3. - Continued.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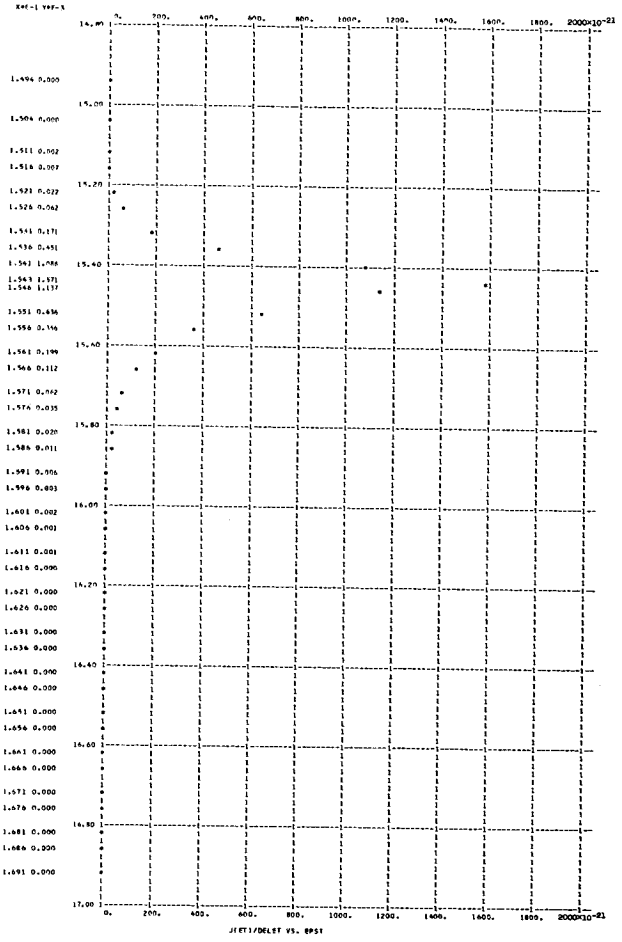
17.00
JFET1/DELEF VS. FPSLTH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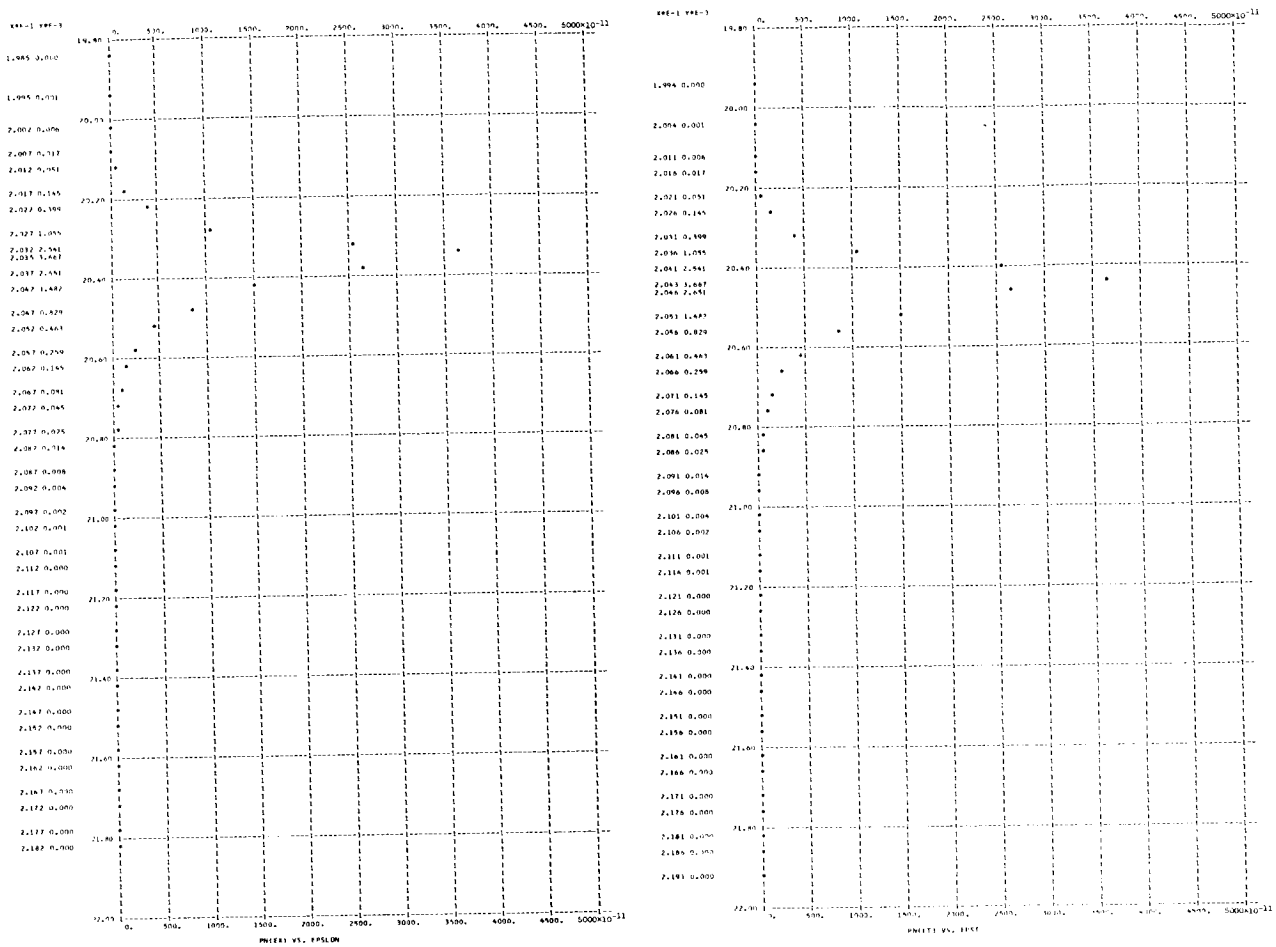
17.00
JFET1/DELEF VS. EPSI

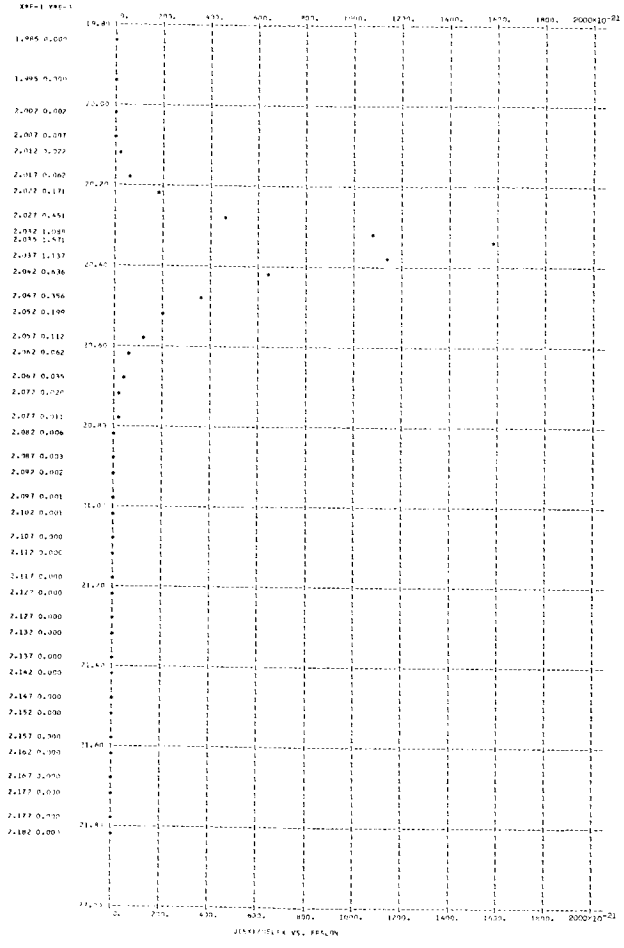


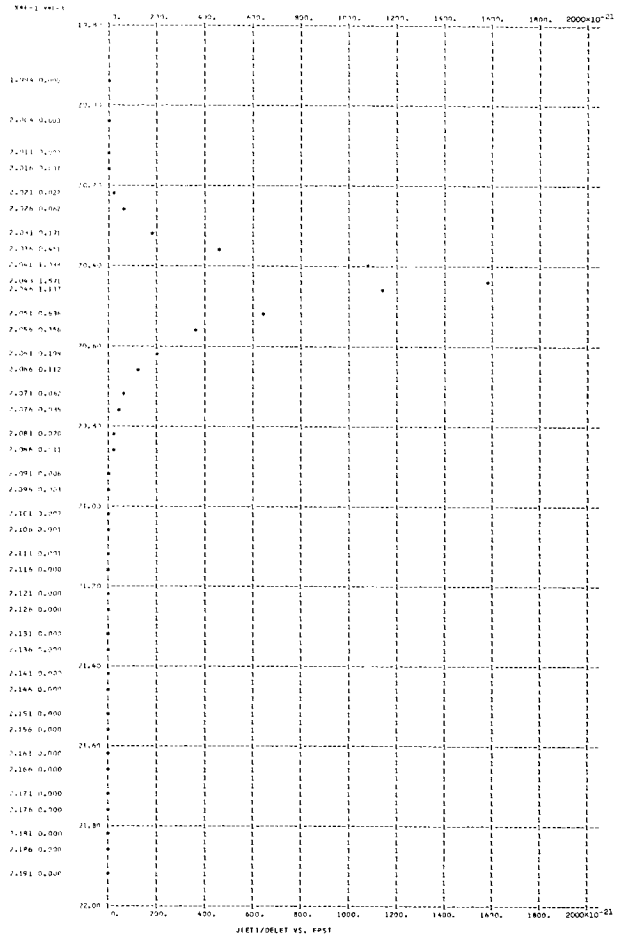
T = 1.00000000E 03 E = 0.31622783E 07 PHI = 6.00 AMU = 15.00 EVMAX = 20.3442

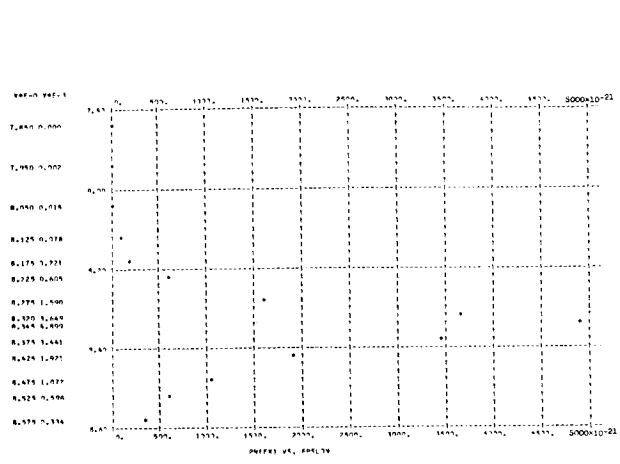
NEM = 0.26396224E 24 NEE = 0.51792167E-08 VXAV = 0.26772894E 09 KEXAV = 0.20378397E 02 KEXFL = 0.54559530E 10

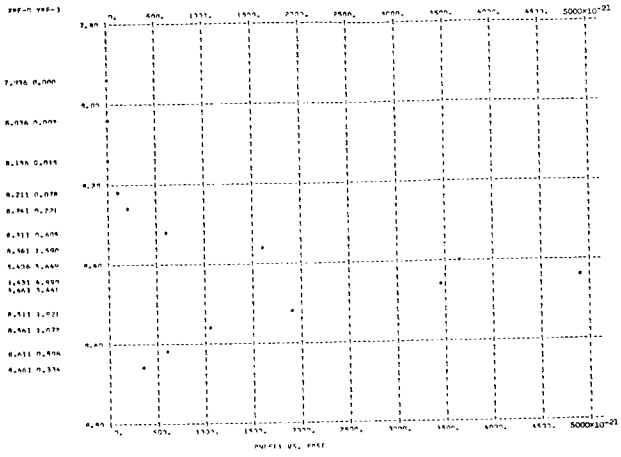
J = 0.222138E-18 KETAV= 0.204646E 02 KETFL= 0.547902E 10 TZERO = 0.158322E 06 TO = 0.667592E 03

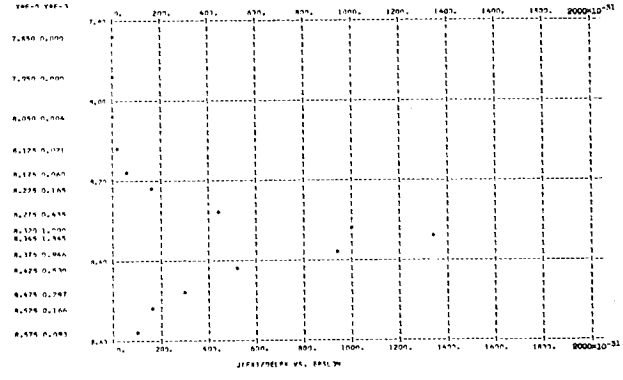
Figure 3. - Continued.

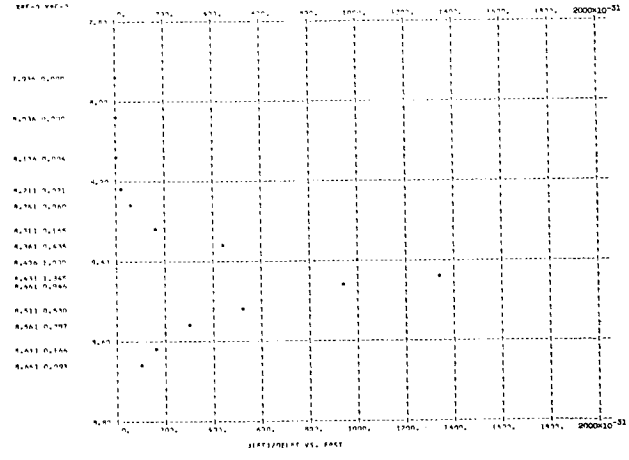










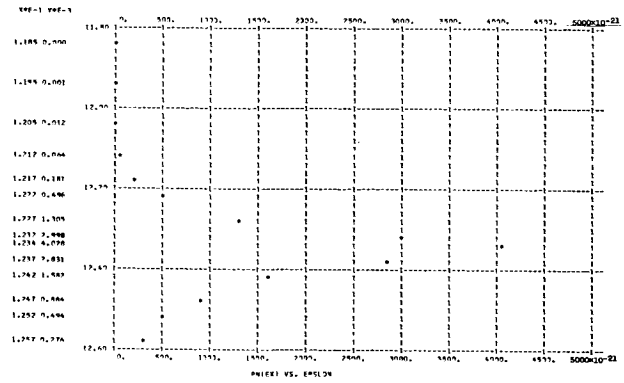


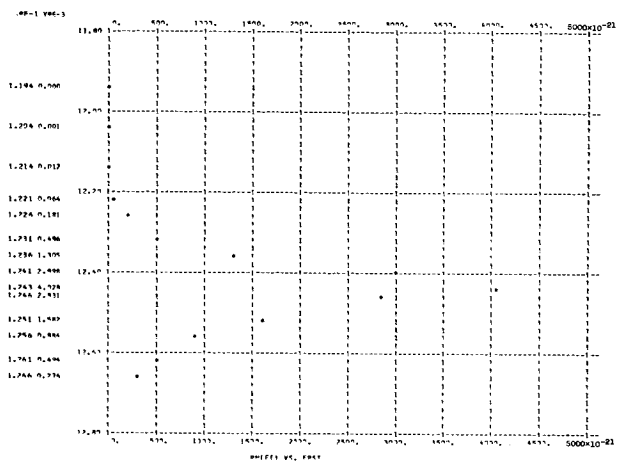
T = 1.00000000E 03 F = 0.31522783E 07 PAI = 3.00 AMU = 1.00 EVMAX = 8.3395

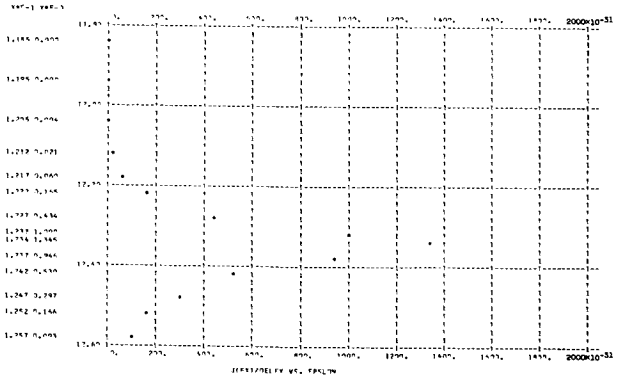
NEM = 0.45427783E 22 NEE = 0.69331270E-18 VXAV = 0.17151669E 09 KEXAV = 0.83637401E 01 KEXFL = 0.14345936E 10

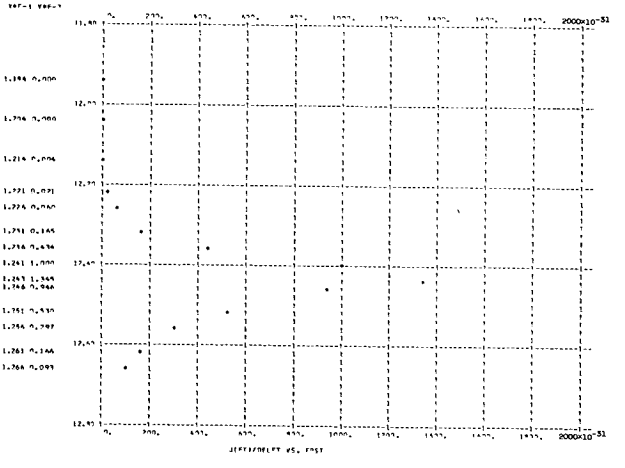
J = 0.189677E-28 KETAV= 0.844991E 01 KETFL= 0.144937E 10 TZERO = 0.653719E 05 ID = 0.4583015 03

Figure 3. - Continued.







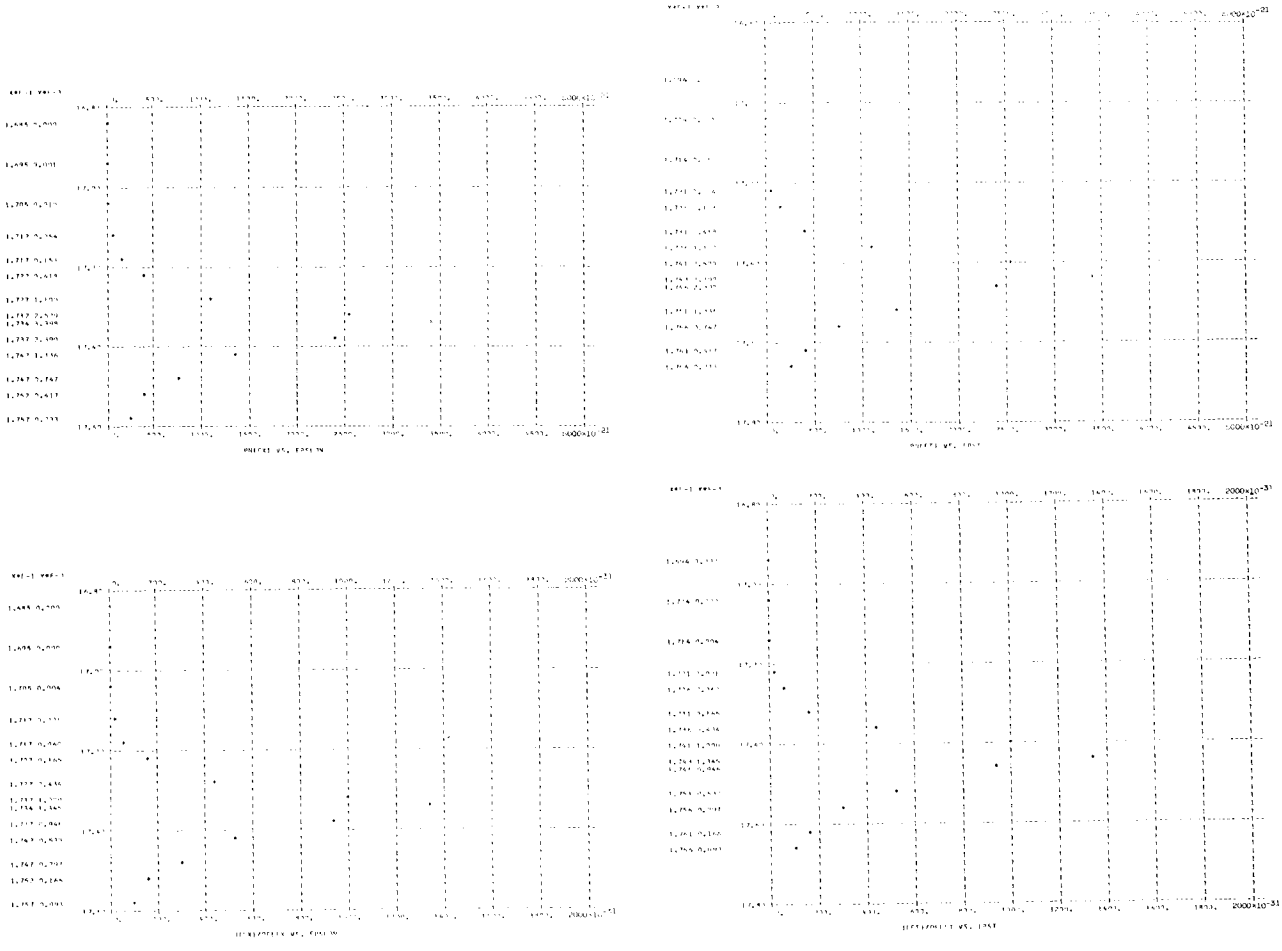


T = 1.00000000E 03 F = 0.31522783E 07 PHI = 8.00 AMU = 5.00 EVMAX = 12.3395

NEM = 0.50780506E 23 NEE = 0.56775973E-19 VXAV = 0.20853858E 09 KEXAV = 0.12363876E 02 KEXFL = 0.25784748E 10

J = 0.189676E-28 KETAV= 0.124500E 02 KETFL= 0.259438E 10 TZERO = 0.963186E 05 TD = 0.6577725 03

Figure 3. - Continued.

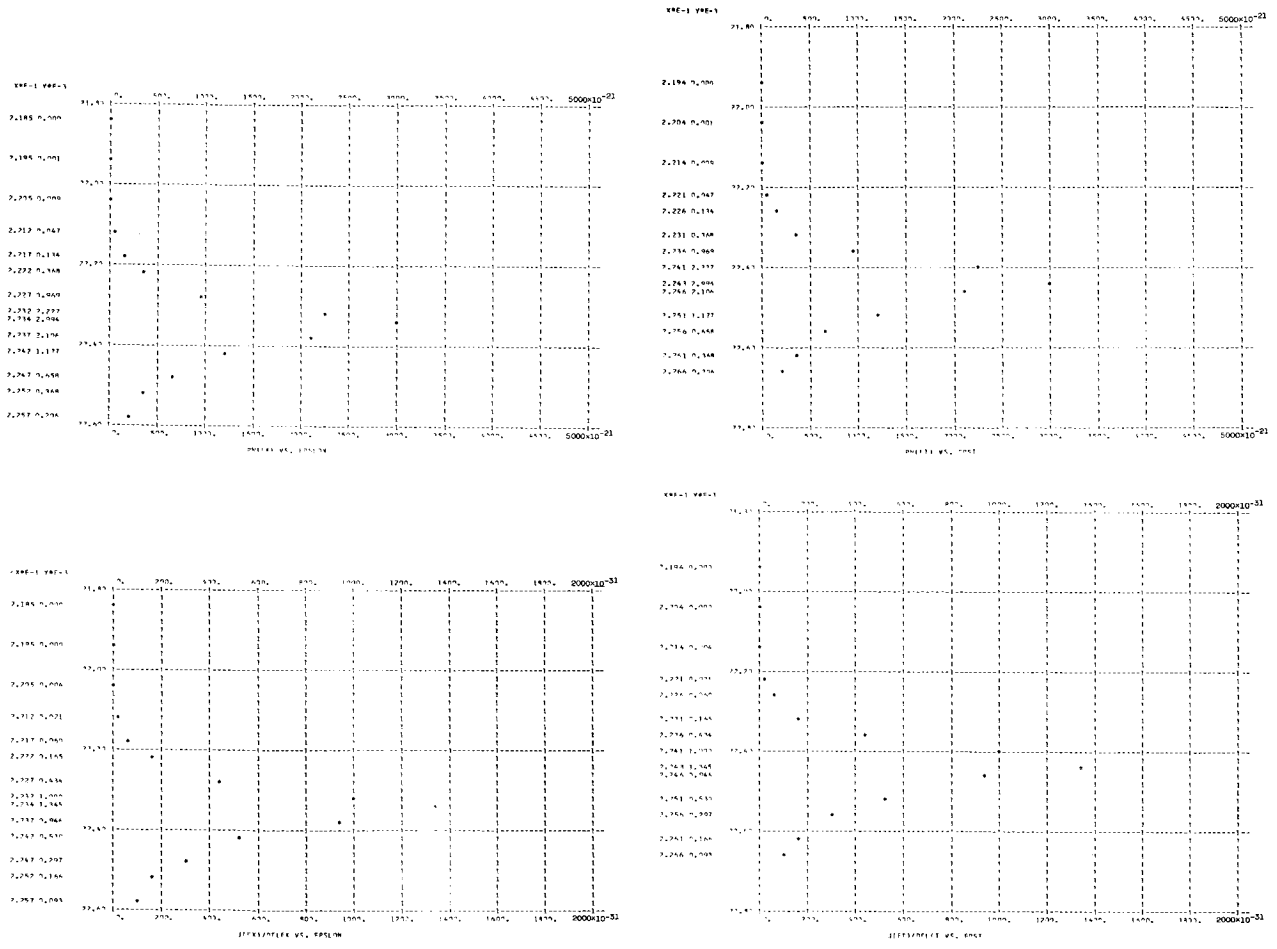


T = 1.00000000E 03 E = 0.31522783E 07 PHI = 8.00 AMU = 10.00 EVMAX = 17.3395

NEM = 0.14367002E 24 NEE = 0.47908778E-19 VXAV = 0.24713525E 09 KEXAV = 0.17363957E 02 KEXEL = 0.43912954E 10

J = 0.189676E-28 KETAV= 0.17457 1E 02 KETEL= 0.4431259E 10 TZERO = 0.135001E 05 TD = 0.4574 52E 03

Figure 3. - Continued.

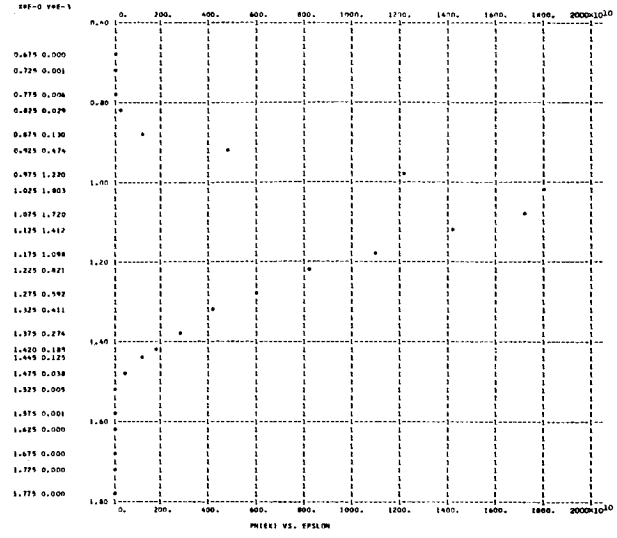


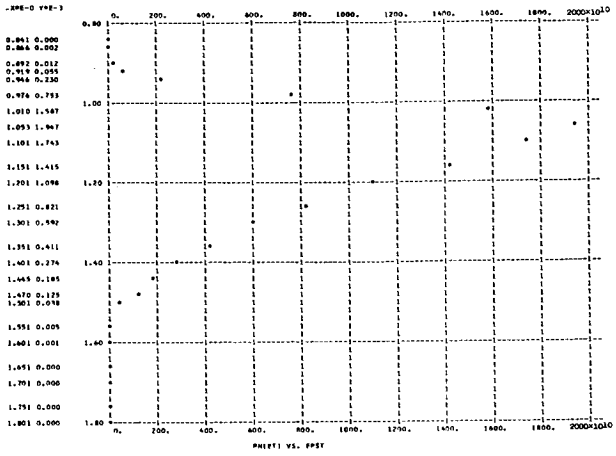
T = 1.000000005 03 E = 0.31522783E 07 PHI = 8.00 AMJ = 15.00 EVMAX = 22.3395

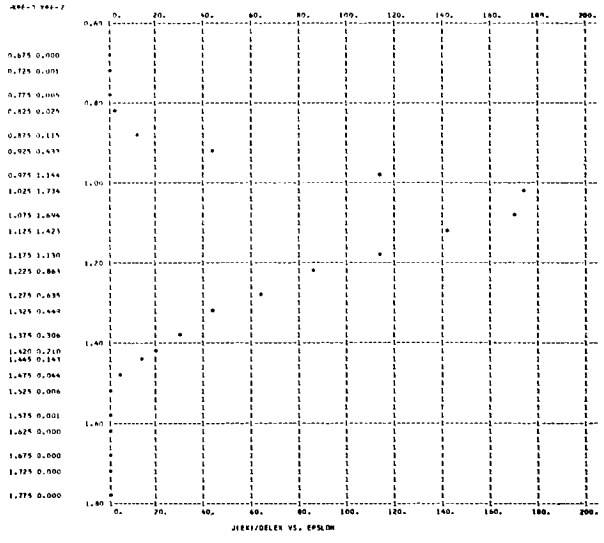
NEM = 0.26396224E 24 NEE = 0.42214462E-18 VXAV = 0.28046948E 09 KEXAV = 0.22364002E 02 KEXEL = 0.42724545E 10

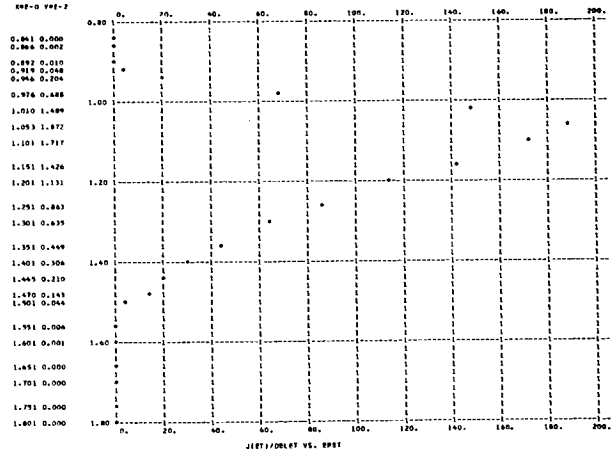
J = 0.189675E-28 KETAV= 0.2245025 02 KETEL= 0.629663E 10 TZERO = 0.173684E 06 TD = 0.6572735 03

Figure 3. -Continued.









T = 0.30000000E 03 E = 0.31622783E 07 PHI = 1.00 AMU = 1.00 EVMAX = 1.4391

NEM = 0.45062760E 22 NEE = 0.51037495E 13 VXAV = 0.62413179E 08 KEXAV = 0.11108596E 01 KEXFL = 0.69761137E 08

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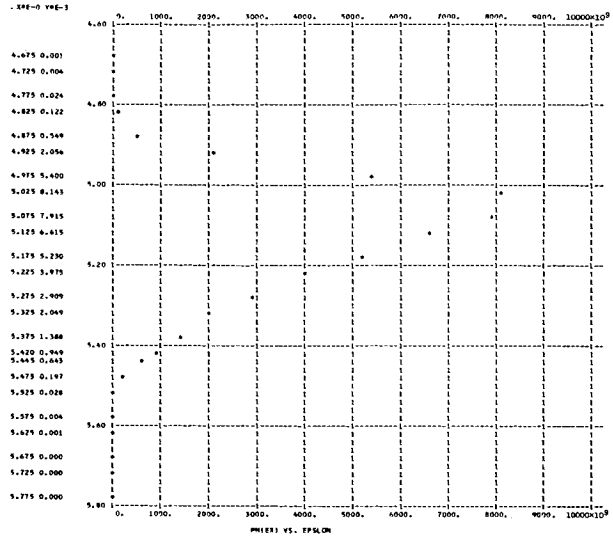
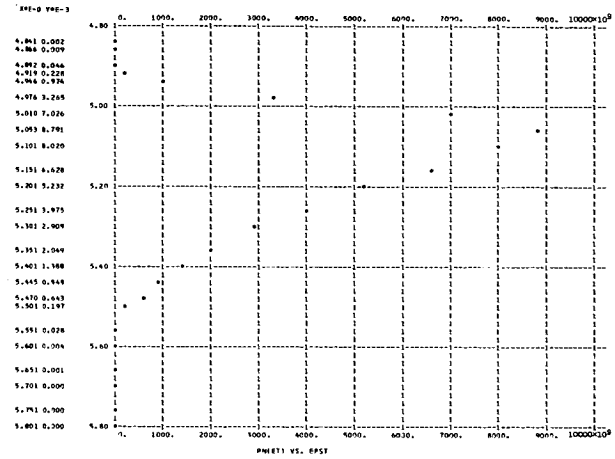
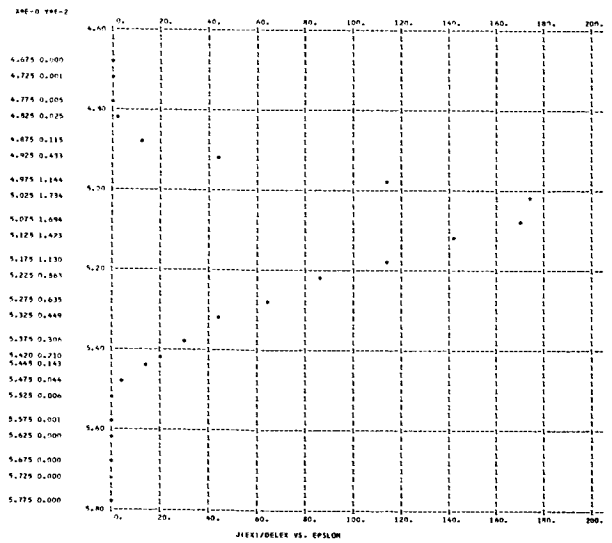
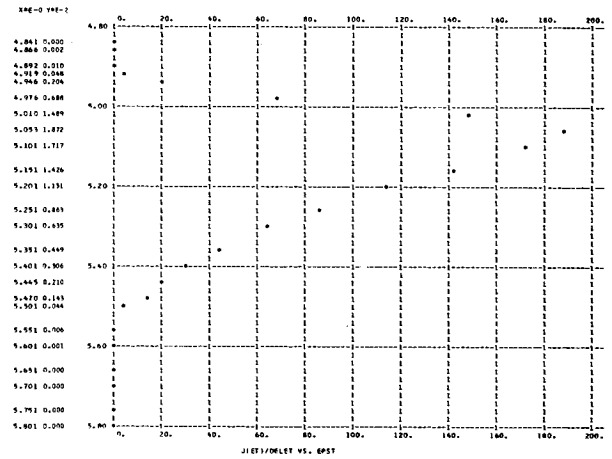
Figure 3. - Continued.







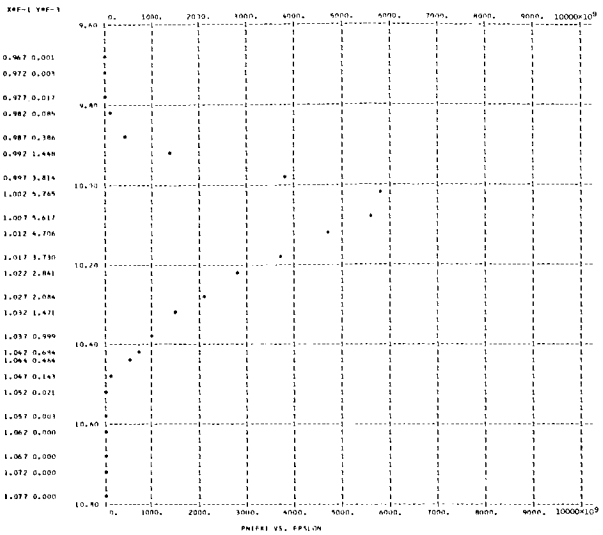


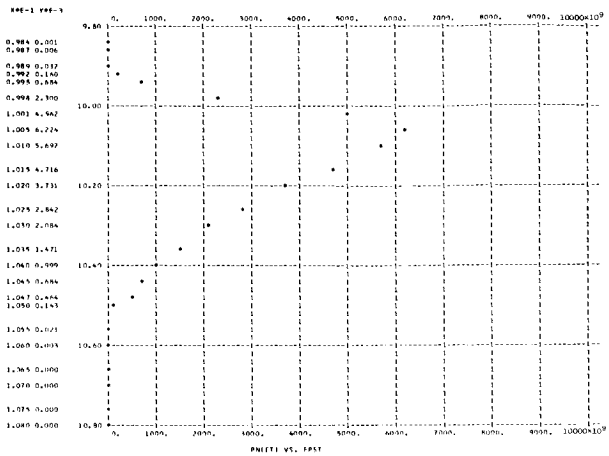
T = 0.30000000E 03 E = 0.31622783E 07 PHI = 1.00 AMU = 5.00 EVMAX = 5.4391

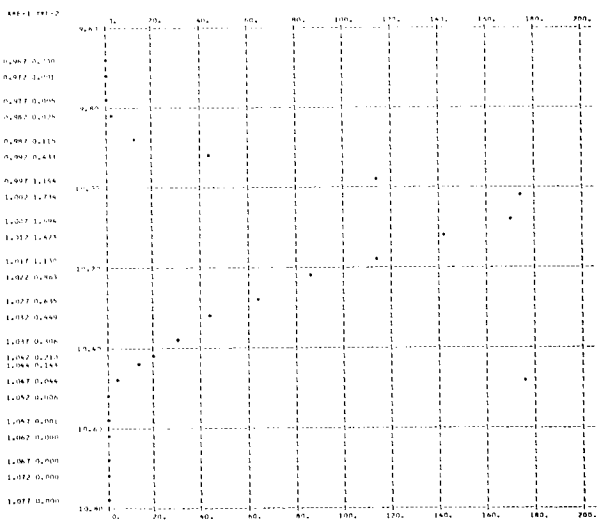
NEM = 0.50764076E 23 NEE = 0.23745682E 13 VXAV = 0.13413838E 09 KEXAV = 0.51162021E 01 KEXFL = 0.68648433E 09

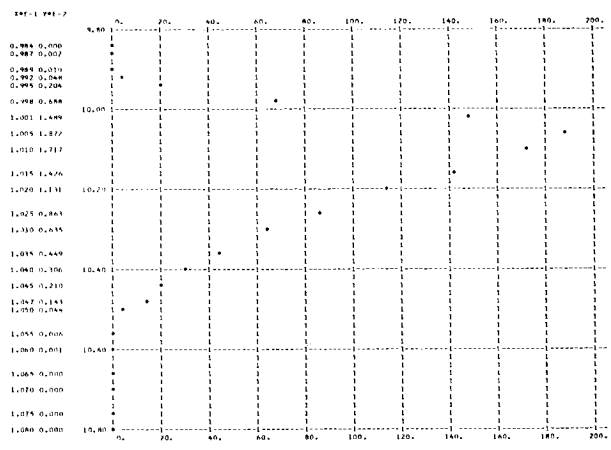
J = 0.510270E 02 KETAV= 0.514541E 01 KETFL= 0.690394E 09 TZERO = 0.398069E 05 TD = 0.231830E 03

Figure 3. - Continued.







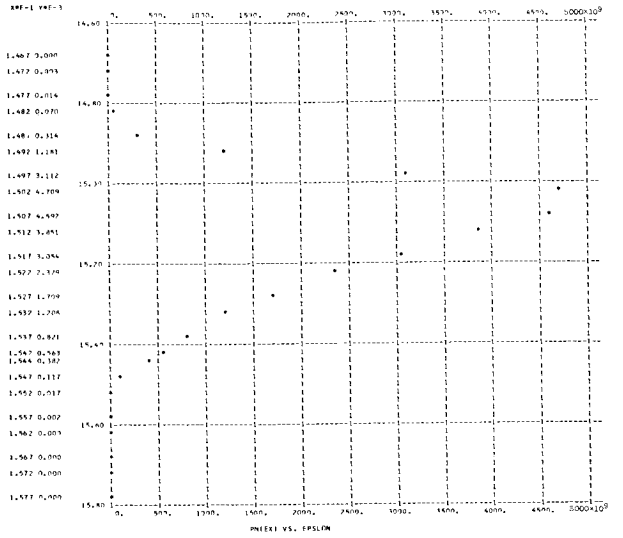


T = 0.30000000E 03 E = 0.31622783E 07 PHI = 1.00 AMU = 10.00 EVMAX = 10.4391

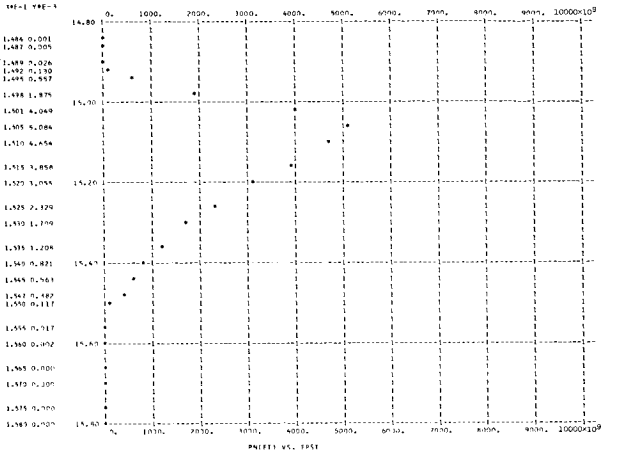
NEM = 0.14365839E 24 NEE = 0.16885342E 13 VXAV = 0.18863757E 09 KEXAV = 0.10116955E 02 KEXFL = 0.19085845E 10

J = 0.510271E 02 KETAV= 0.101461E 02 KETFL= 0.191408E 10 TZERO = 0.784945E 05 TD = 0.228708E 03

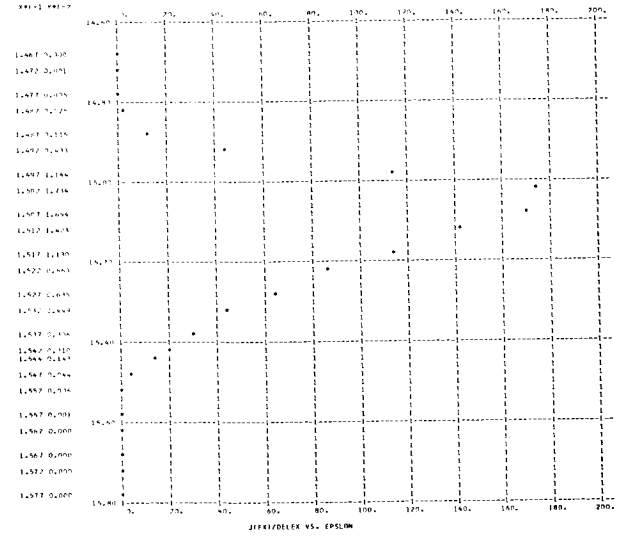
Figure 3. -Continued.



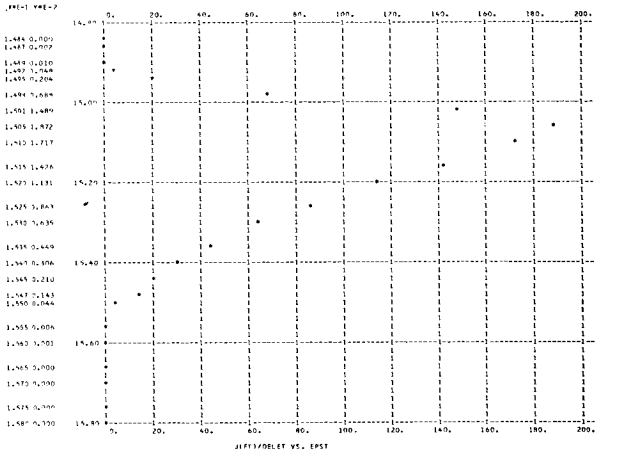
PNEEXI VS. EPSLON



PNEEYI VS. EPSI



JEEXI/DELEX VS. EPSLON



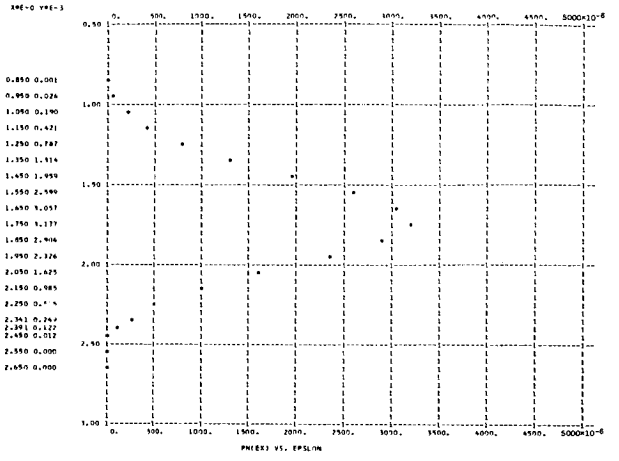
JEEYI/DELEY VS. EPSI

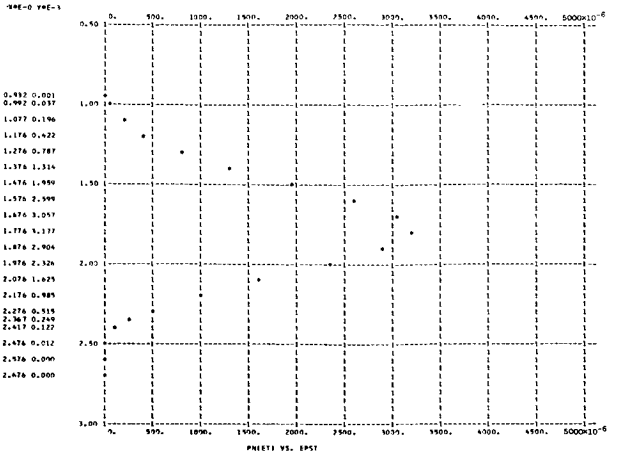
T = 0.30000000E 03 E = 0.31622783E 07 PHI = 1.00 AMU = 15.00 EVMAX = 15.4391

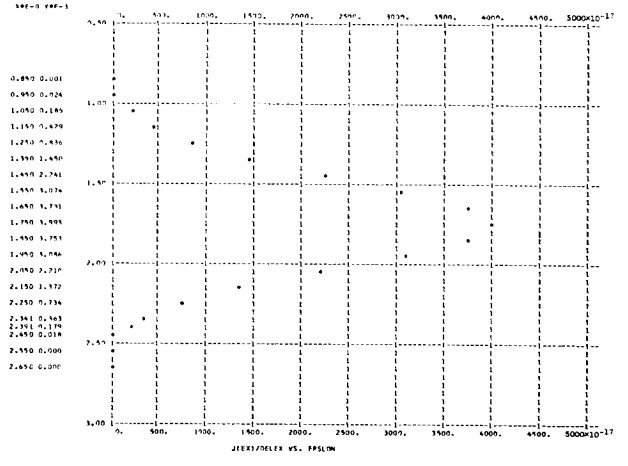
NEM = 0.26395274E 24 NEE = 0.13813119E 13 VXAV = 0.23059172E 09 KEXAV = 0.15117212E 02 KEXFL = 0.34860241E 10

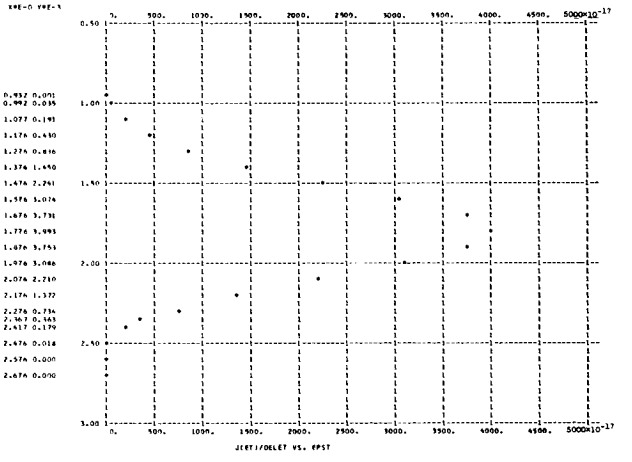
J = 0.510268E 02 KETAV= 0.151464E 02 KETFL= 0.349274E 10 TZERO = 0.117178E 06 TD = 0.227636E 03

Figure 3. - Continued.







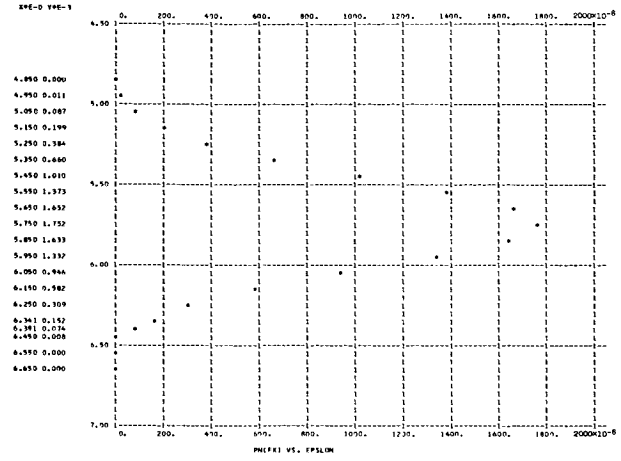


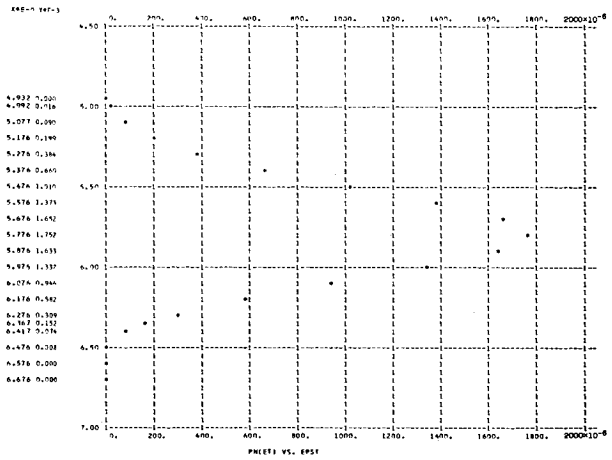
T = 0.30000000E 03 E = 0.31622783E 07 PHI = 2.00 AMU = 1.00 EVMAX = 2.3821

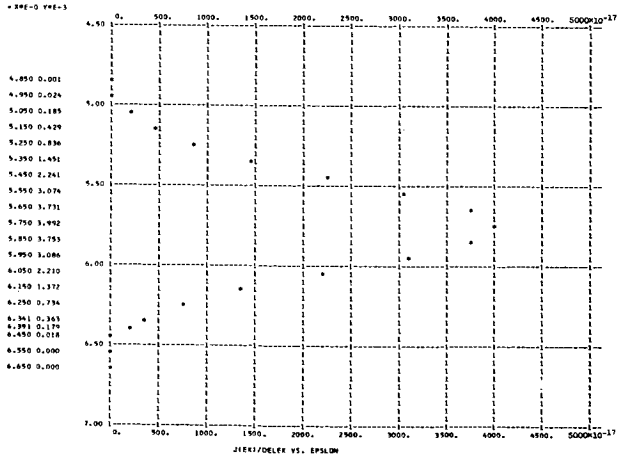
NEM = 0.45046996E 22 NEE = 0.22125749E-02 VXAV = 0.77498642E 08 KEXAV = 0.17183031E 01 KEXFL = 0.13481959E 09

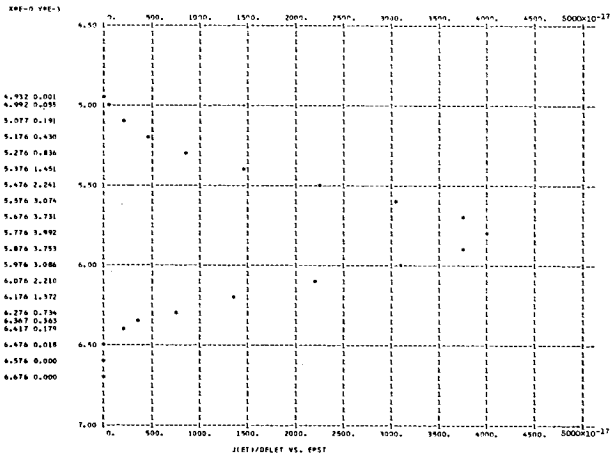
J = 0.274697E-13 KETAV= 0.174418E 01 KETFL= 0.136825E 09 TZERO = 0.134937E 05 TD = 0.283668E 03

Figure 3. - Continued.







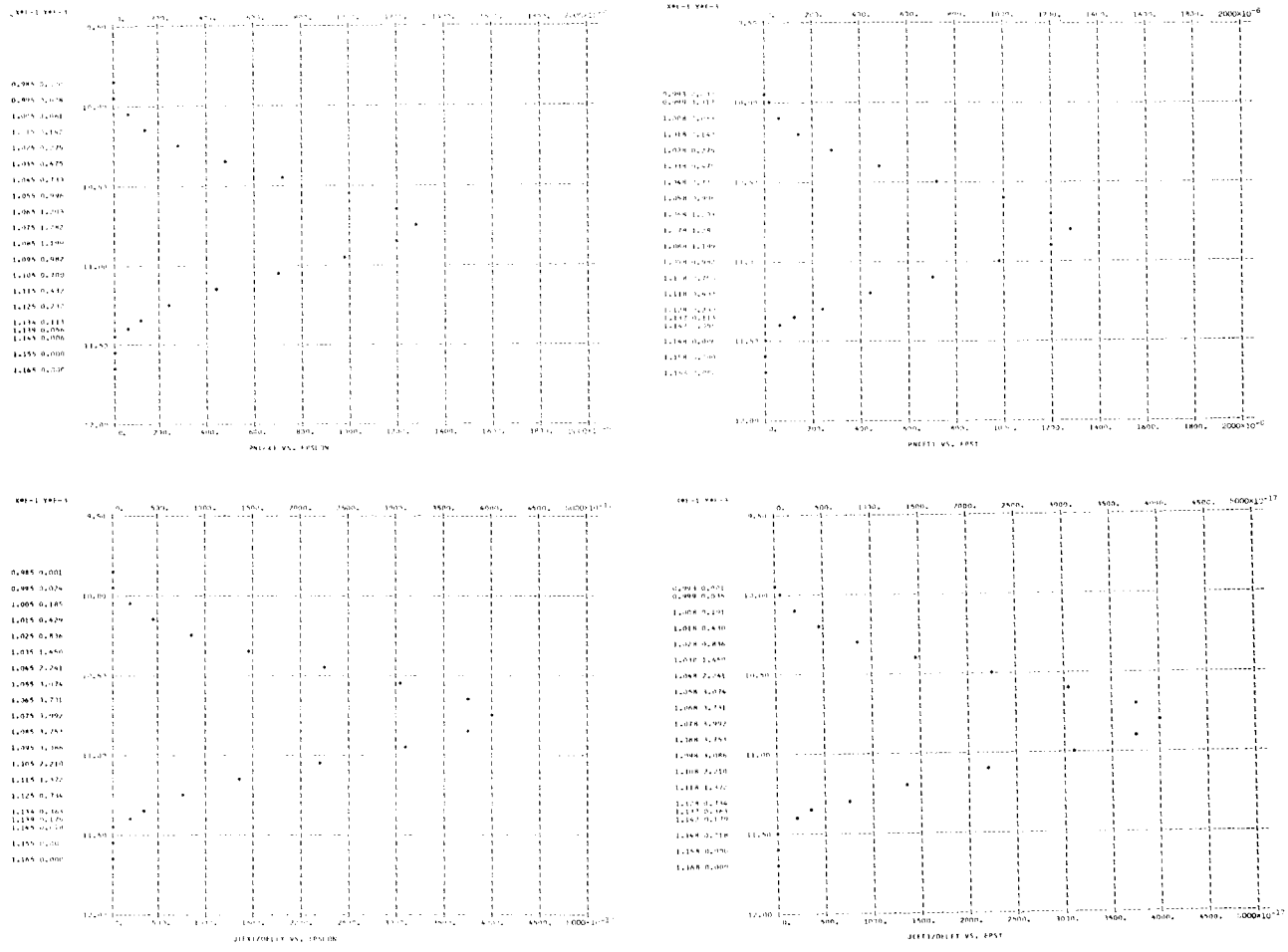


T = 0.30000000E 03 E = 0.31622783E 07 PHI = 2.00 AMU = 5.00 EVMAX = 6.3821

NEM = 0.50763609E 23 NEE = 0.12076529E-02 VXAV = 0.14197132E 09 KEXAV = 0.57334264E 01 KEXFL = 0.81486573E 09

J = 0.274666E-13 KETAV= 0.575930E 01 KETFL= 0.818539E 09 TZERO = 0.445563E 05 TD = 0.224294E 03

Figure 3. - Continued.

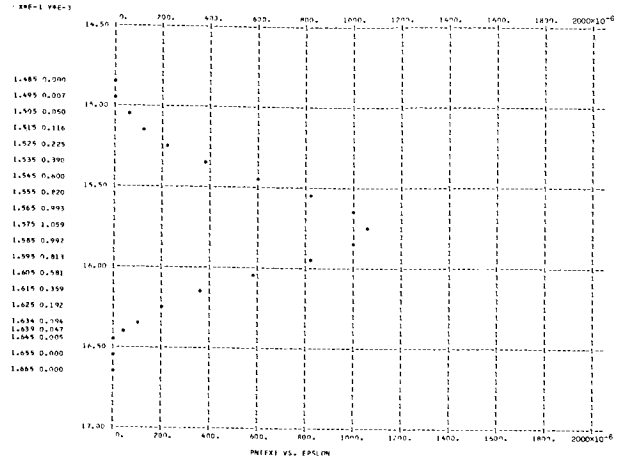


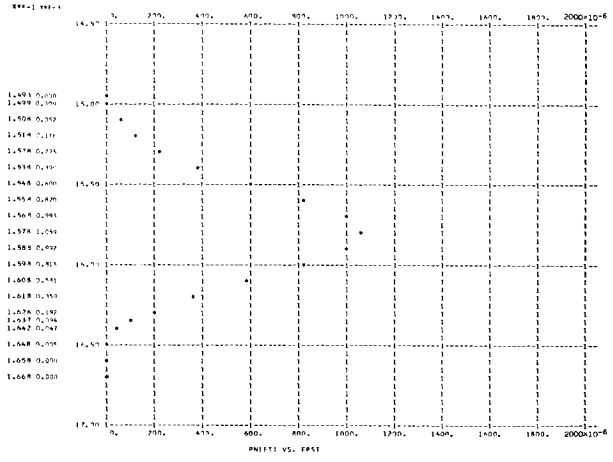
T = 0.30000000E 03 E = 0.31622783E 07 PHI = 2.00 AMU = 10.00 EVMAX = 11.3821

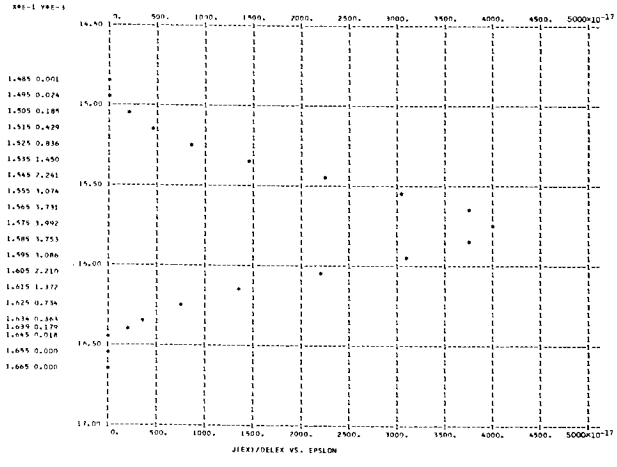
NEM = 0.14365808E 24 NEE = 0.88233235E-03 VXAV = 0.19431492E 09 KEXAV = 0.10736339E 02 KEXFL = 0.20868749E 10

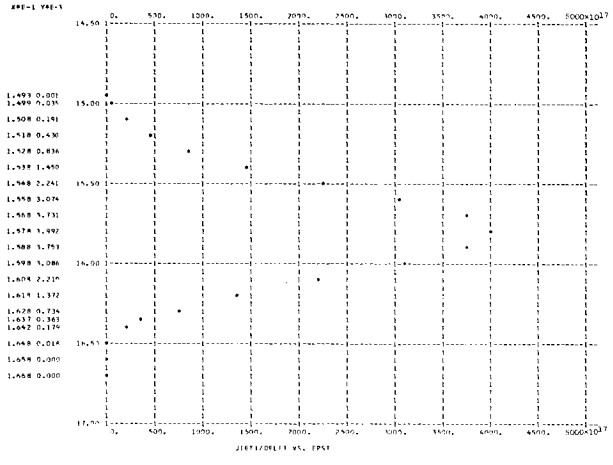
J = 0.274663E-13 KETAV= 0.107622E 02 KETFL= 0.209190E 10 TZERO = 0.832608E 05 TD = 0.213003E 03

Figure 3. - Continued.







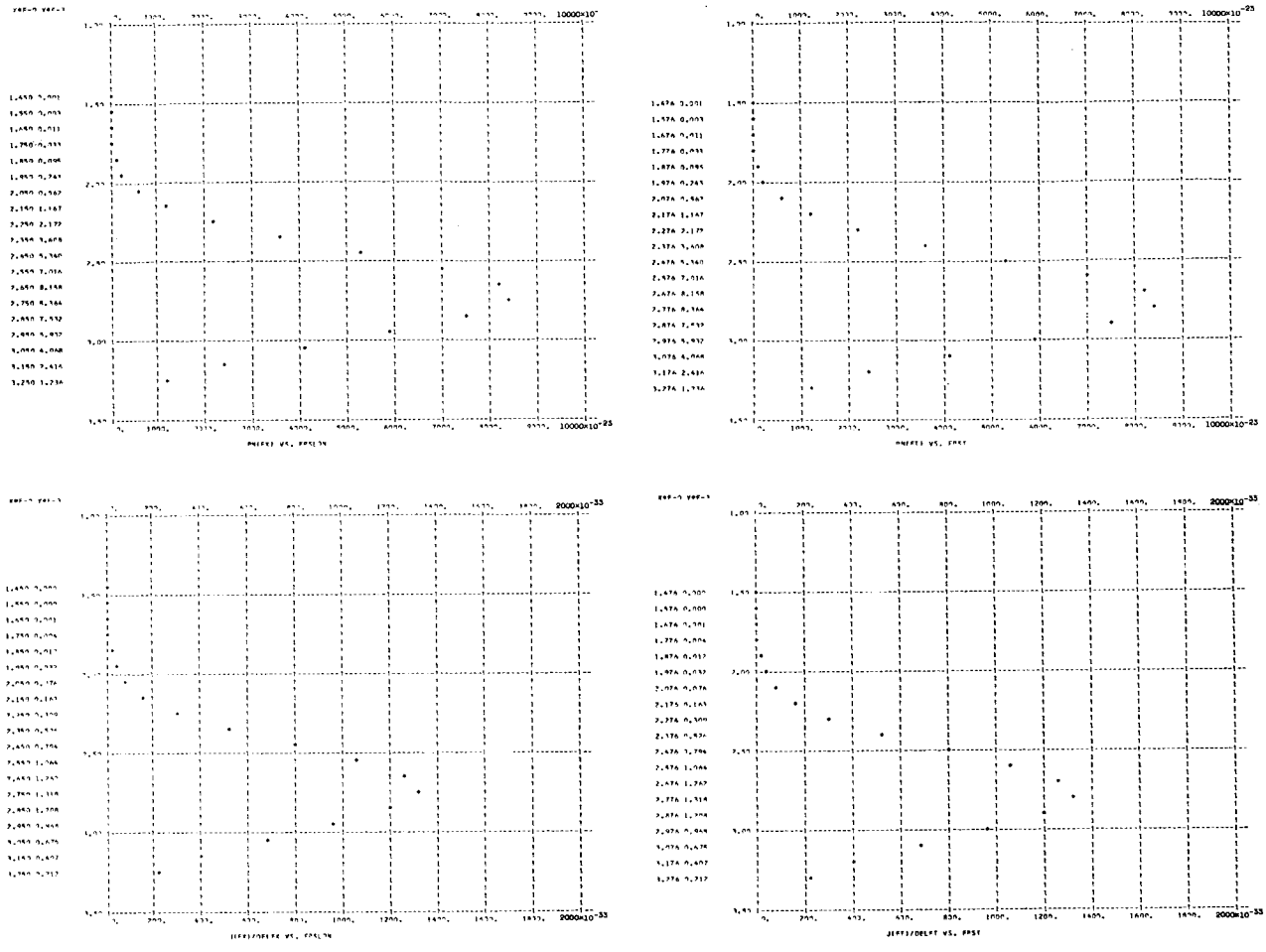


T = 0.30000000E 03 E = 0.31622783E 07 PHI = 2.00 AMU = 15.00 EVMAX = 16.3821

NEM = 0.26395249E 24 NEE = 0.72874270E-03 VXAV = 0.23526774E 09 KEXAV = 0.15737392E 02 KEXFL = 0.37030323E 10

J = 0.274662E-13 KETAV= 0.157633E 02 KETFL= 0.370912E 10 TZERO = 0.121951E 06 TD = 0.208909E 03

Figure 3. - Continued.

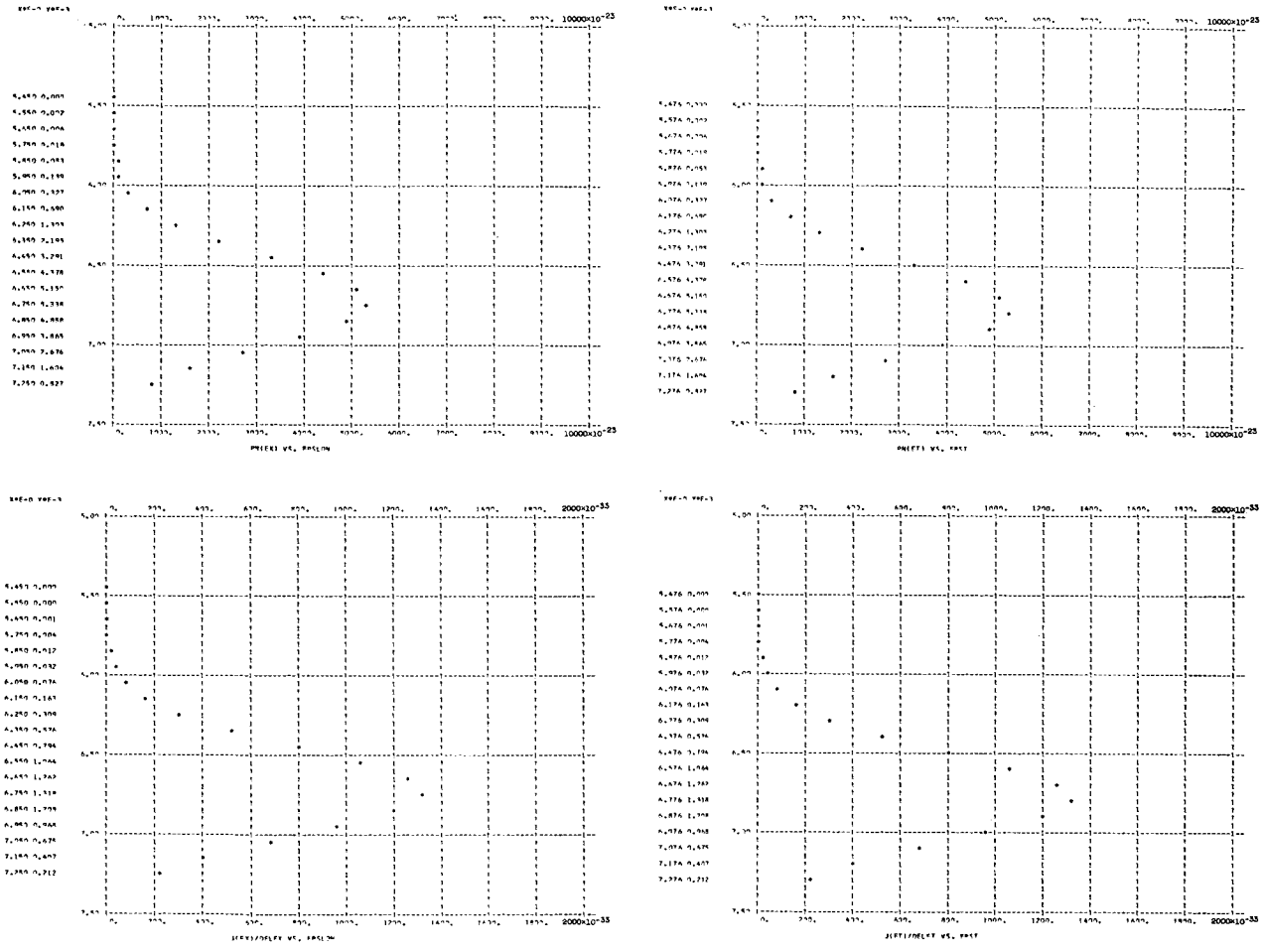


T = 0.30000000E 03 E = 0.31522783E 07 PHI = 3.00 AMU = 1.00 EVMAX = 3.3632

NFM = 0.45046996E 22 NFE = 0.57959078E-19 VXAV = 0.97289085E 08 KEXAV = 0.26977351E 01 KEXFL = 0.25375842E 09

J = 0.903333E-30 KETAV= 0.272359E 01 KETFL= 0.266284E 09 FZERO = 0.210708E 05 TD = 0.252521E 03

Figure 3. - Continued.

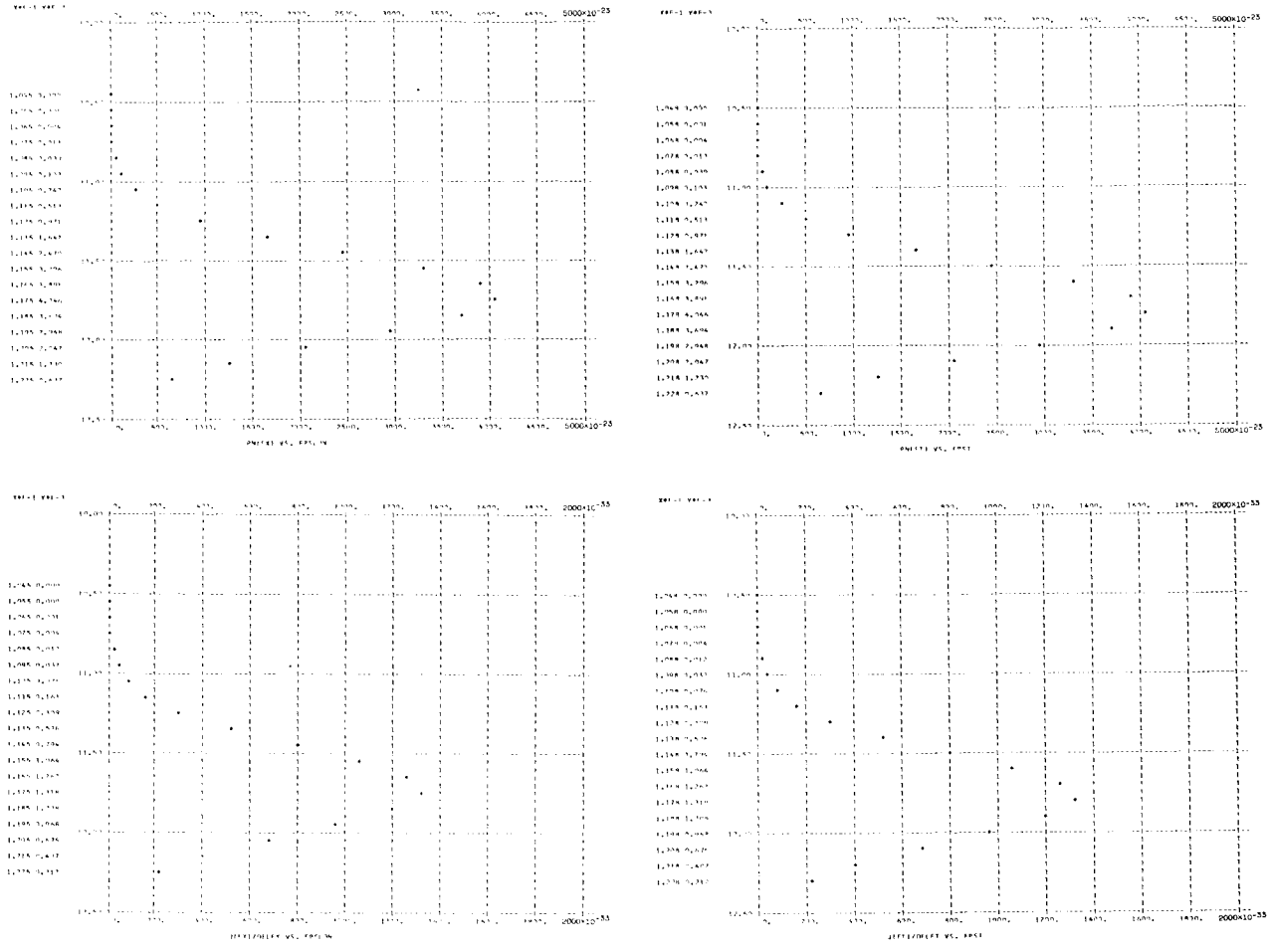


T = 0.30000000E 03 E = 0.31522783E 07 PHI = 3.00 AMU = 5.00 FVMAX = 7.3632

NEM = 0.50763609E 23 NEE = 0.36720926E-19 VXAV = 0.15355121E 09 KEXAV = 0.67058790E 01 KEXEL = 0.13305107E 10

J = 0.903295E-30 KETAV= 0.673173E 01 KETEL= 0.133448E 10 TZERO = 0.520794E 05 TD = 0.220598E 03

Figure 3. - Continued.

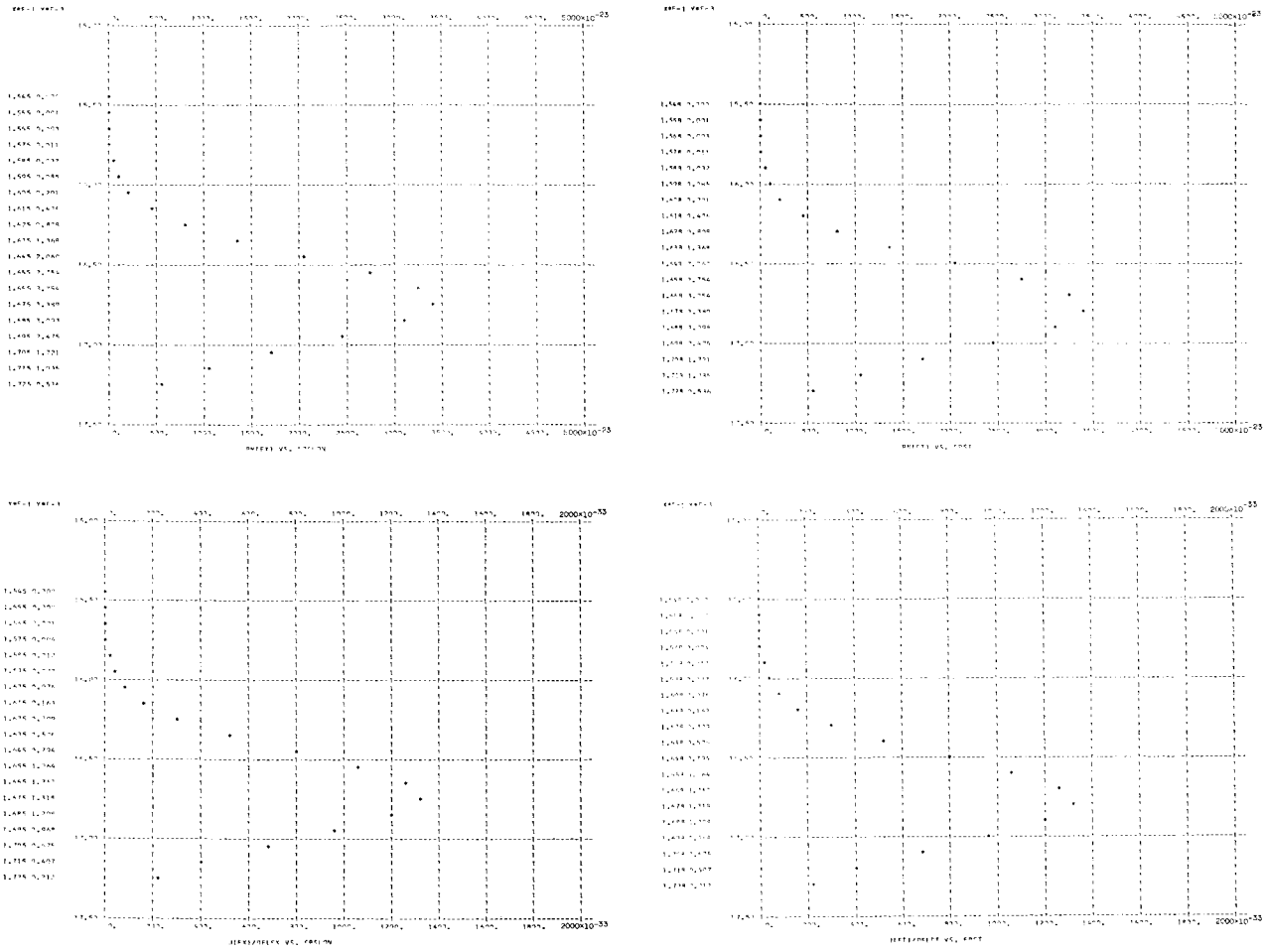


T = 0.30000000E 03 E = 0.31522783E 07 PHI = 3.00 AMJ = 10.00 EVMAX = 12.3632

NEN = 0.14365808E 24 NEE = 0.27784784E-19 VXAV = 0.20292134E 09 KEXAV = 0.11709155E 02 KEXEL = 0.23754487E 10

J = 0.903293E-30 KETAV= 0.11734QE 02 KETEL= 0.238169E 10 TZERO = 0.907790E 05 TJ = 0.211729E 03

Figure 3. - Continued.

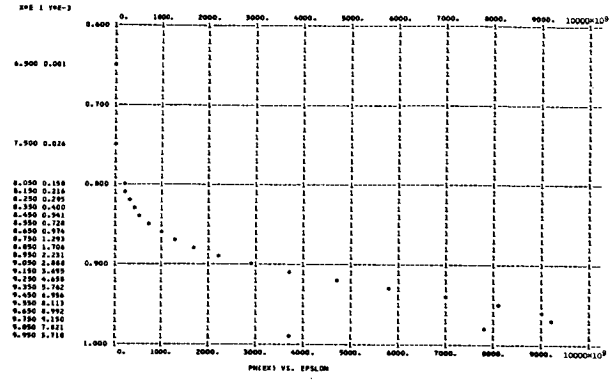


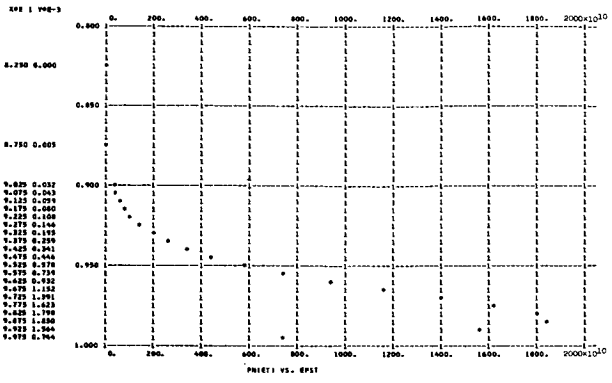
T = 0.300000005 03 E = 0.315227835 07 PHI = 3.00 AMJ = 15.00 EVMAX = 17.3632

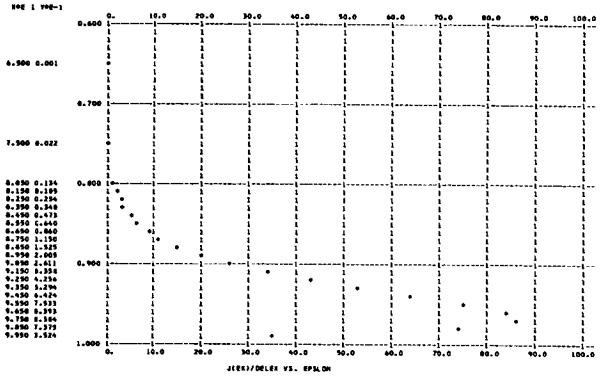
NEM = 0.263952495 24 NEE = 0.233259475-19 VXAV = 0.242423045 09 KEXAV = 0.167292655 02 KEXEL = 0.405117595 10

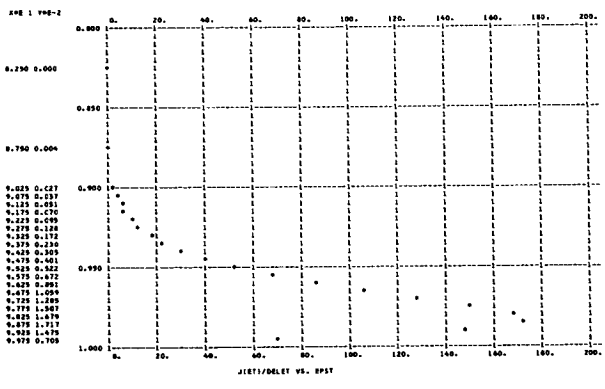
J = 0.903296E-30 KETAV= 0.167349E 02 KETEL= 0.405744E 10 TZERO = 0.129468E 05 TJ = 0.208204E 23

Figure 3. - Continued.







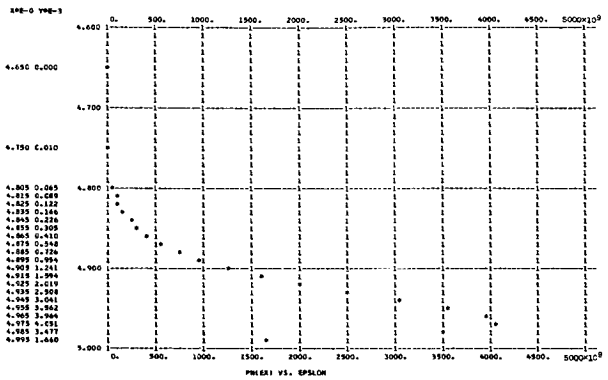


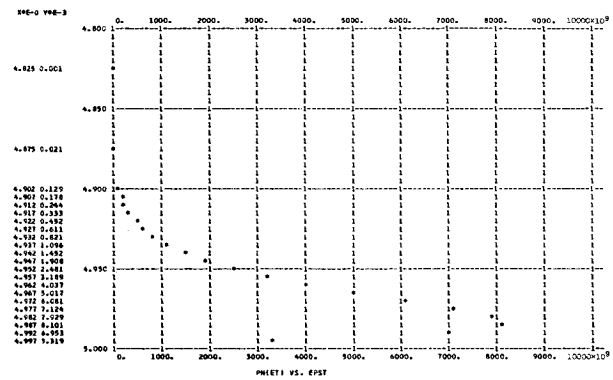
T = 0. E = 0.31622783E 07 PHI = 1.00 AMU = 1.00 EVMAX = 1.4391

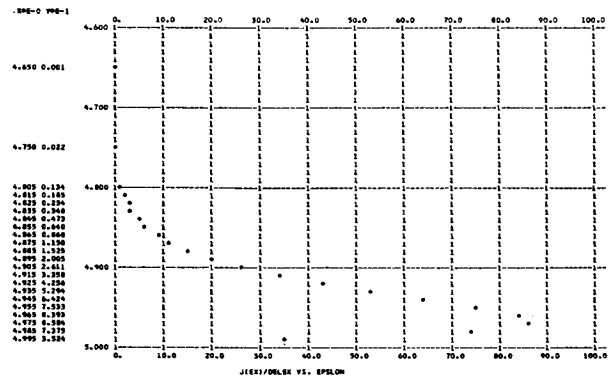
NEN = 0.45025940E 22 NEE = 0.70568033E 12 VXAV = 0.57628816E 08 KEXAV = 0.94459713E 00 KEXFL = 0.54483011E 08

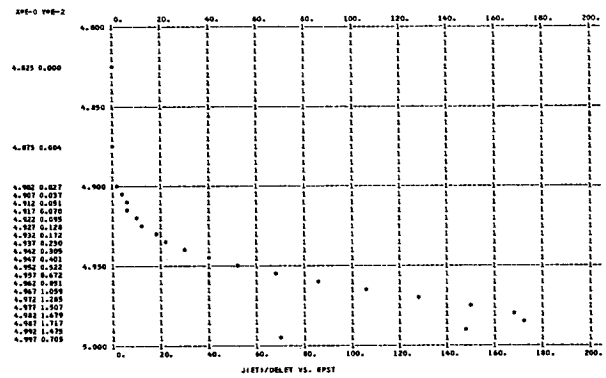
J = 0.651494E 01 KETAV= 0.972299E 00 KETFL= 0.560559E 08 TZERO = 0.752209E 04 TD = 0.217513E 03

Figure 3. - Continued.







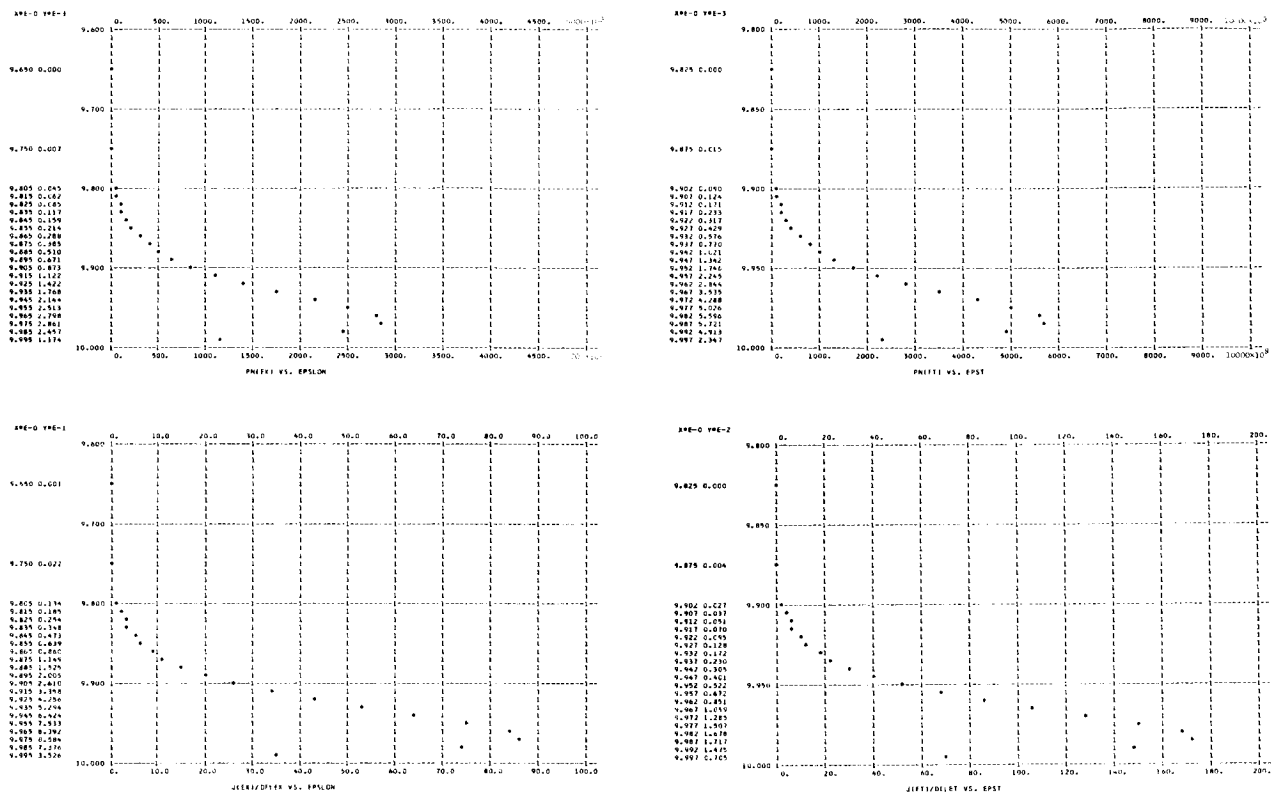


T = 0. E = 0.31622783E 07 PHI = 1.00 AMU = 5.00 EVMAX = 5.4391

NEM = 0.50762542E 23 NEE = 0.30835041E 12 VXAV = 0.13188730E 09 KEXAV = 0.49452627E 01 KEXFL = 0.65223715E 09

J = 0.651493E 01 KETAV= 0.497263E 01 KETFL= 0.655837E 09 TZERO = 0.384703E 05 TD = 0.212316E 03

Figure 3. - Continued.

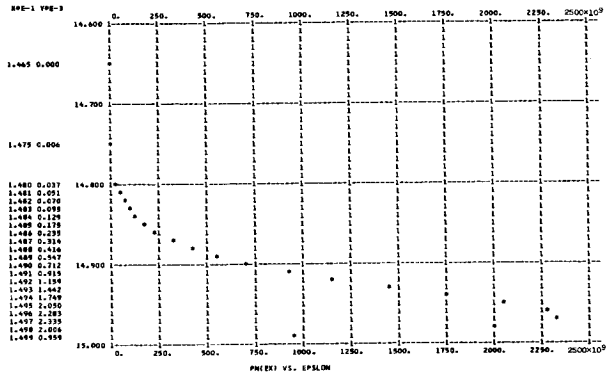


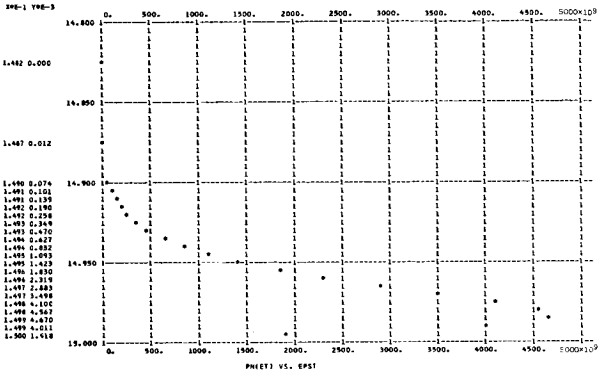
T = 0. E = 0.31622783E 07 PHI = 1.00 AMU = 10.00 EVMAX = 10.4391

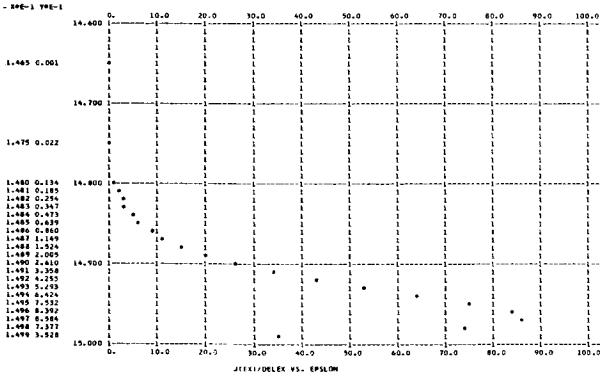
NEM = 0.14365730E 24 NEE = 0.21743234E 12 VXAV = 0.18703400E 09 KEXAV = 0.99453381E 01 KEXFL = 0.18601303E 10

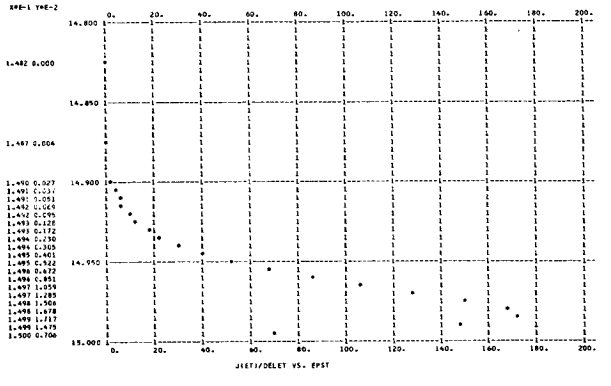
J = 0.651489E 01 KETAV= 0.997267E 01 KETFL= 0.186524E 10 TZERO = 0.771526E 05 TD = 0.211729E 03

Figure 3. - Continued.







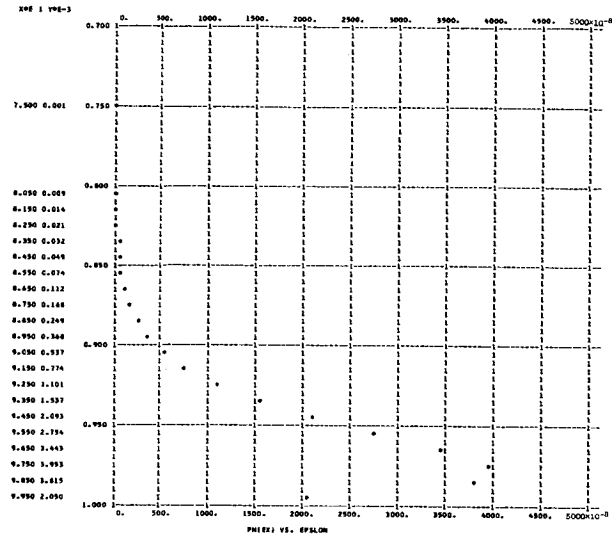


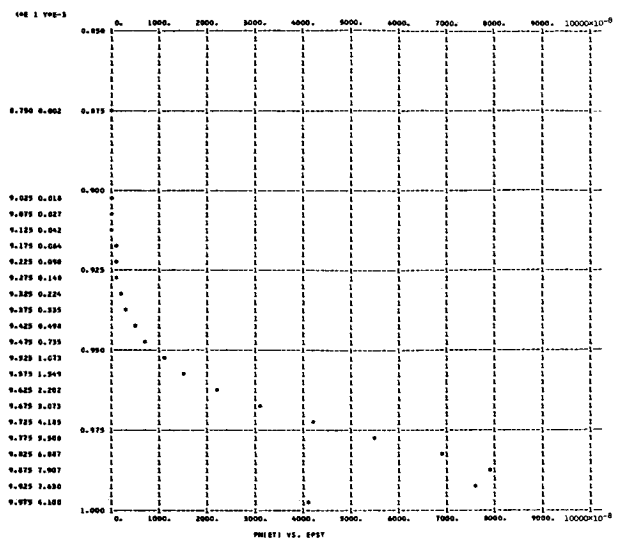
T = 0. E = 0.31622783E 07 PHI = 1.00 ANU = 15.00 EVMAX = 15.4391

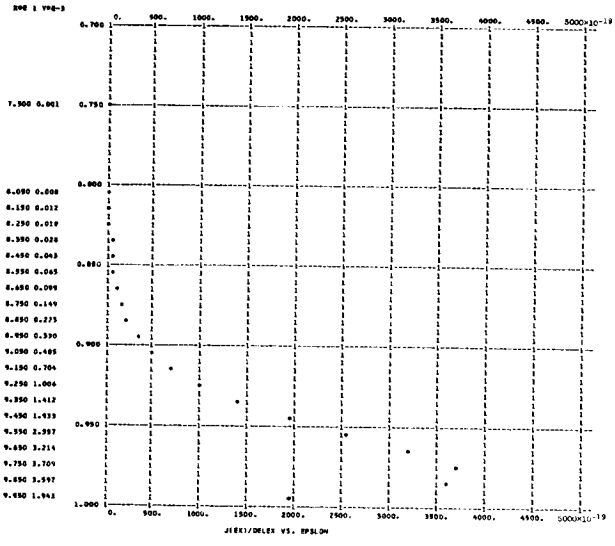
NEM = 0.26395185E 24 NEE = 0.17737020E 12 VXAV = 0.22927911E 09 KEXAV = 0.14945363E 02 KEXFL = 0.34266707E 10

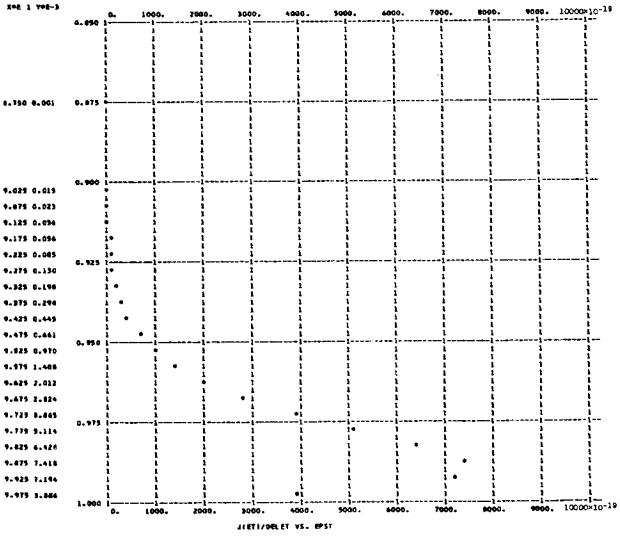
J = 0.651490E 01 KETAV= 0.149727E 02 KETFL= 0.343293E 10 TZERO = 0.115835E 06 TD = 0.211534E 03

Figure 3. - Continued.







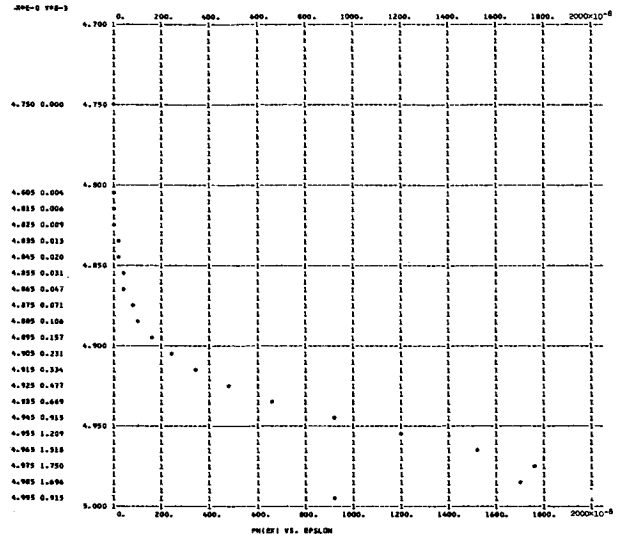


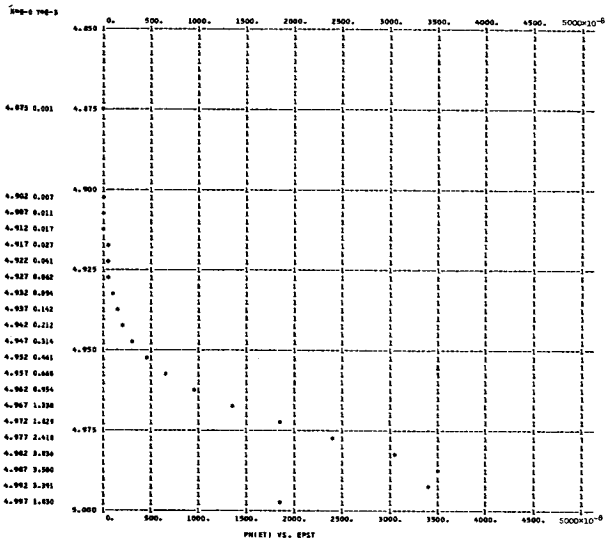
T = 0. E = 0.31622783E 07 PHI = 2.00 AMU = 1.00 EVMAX = 2.3821

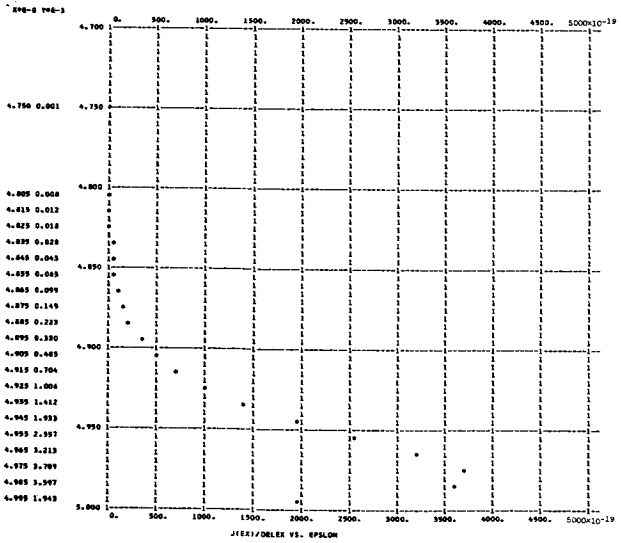
NEN = 0.45025940E 22 NEE = 0.23159363E-05 VXAV = 0.58059972E 08 KEXAV = 0.95846480E 00 KEXFL = 0.55671357E 08

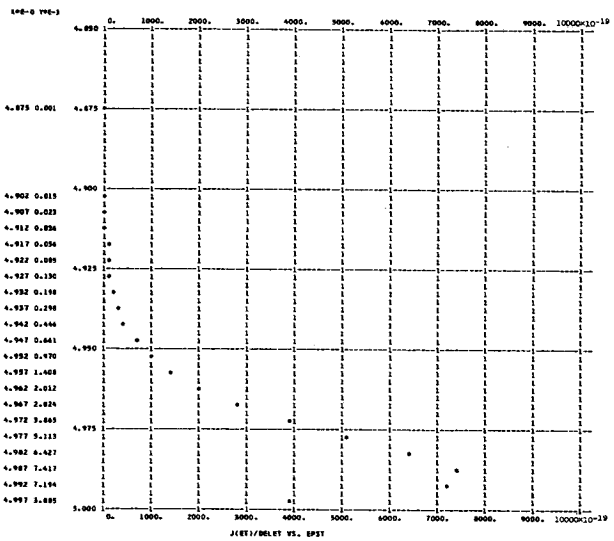
J = 0.215395E-16 KETAV= 0.979232E 00 KETFL= 0.568637E 08 TZERO = 0.757574E 04 TD = 0.162469E 03

Figure 3. - Continued.







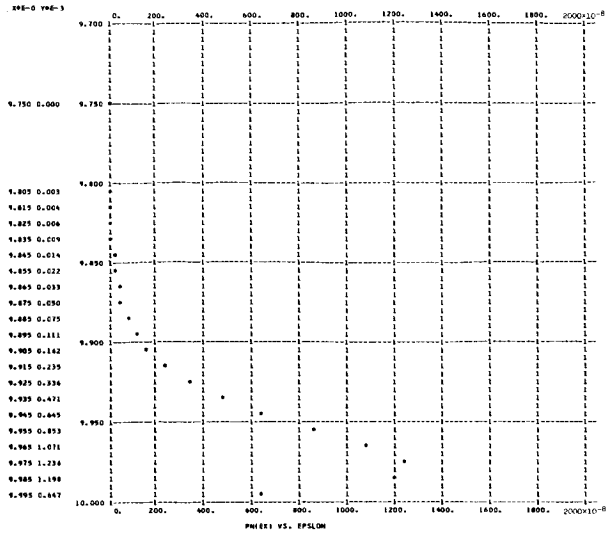


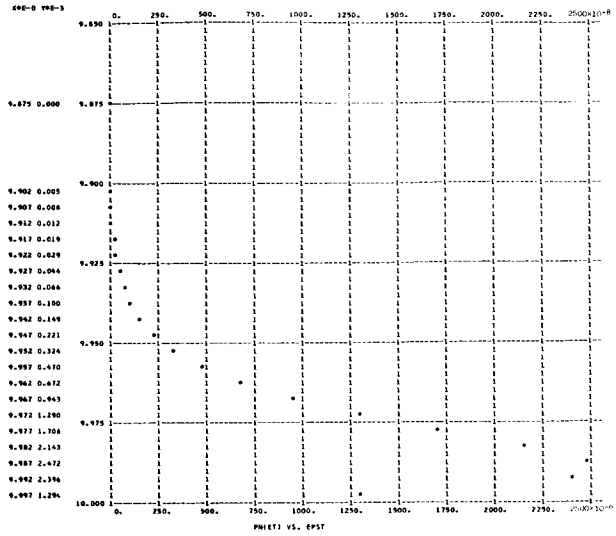
T = 0. E = 0.31622783E 07 PHI = 2.00 AMU = 5.00 EVMAX = 6.3821

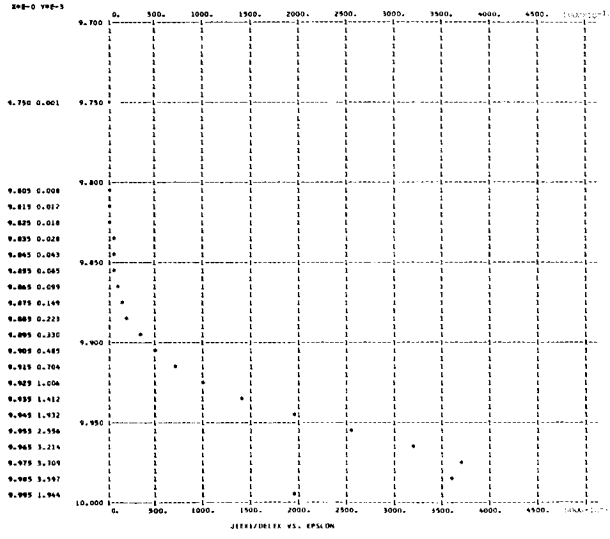
NEM = 0.50762542E 23 NEE = 0.10179994E-05 VXAV = 0.13206861E 09 KEXAV = 0.49588371E 01 KEXFL = 0.65491820E 09

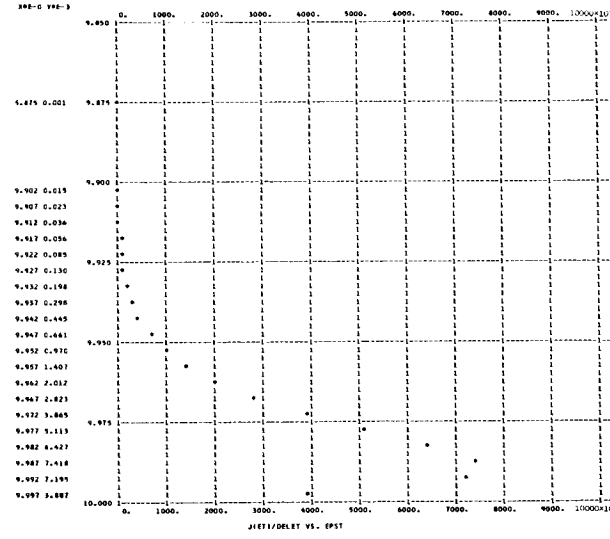
J = 0.215382E-16 KETAV= 0.497942E 01 KETFL= 0.657631E 09 TZERO = 0.385228E 05 TD = 0.159561E 03

Figure 3. - Continued.







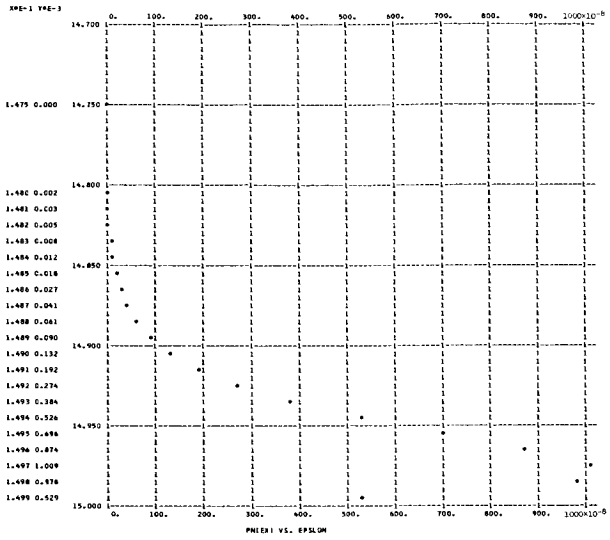


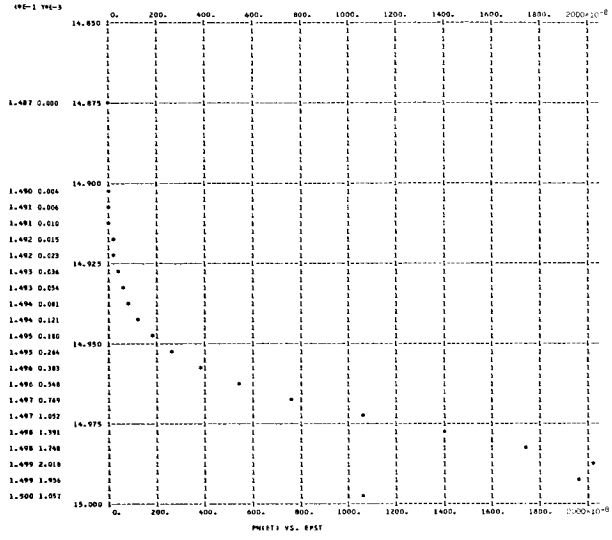
T = 0. E = 0.31622783E 07 PHI = 2.00 AMU = 10.00 EVMAX = 11.3821

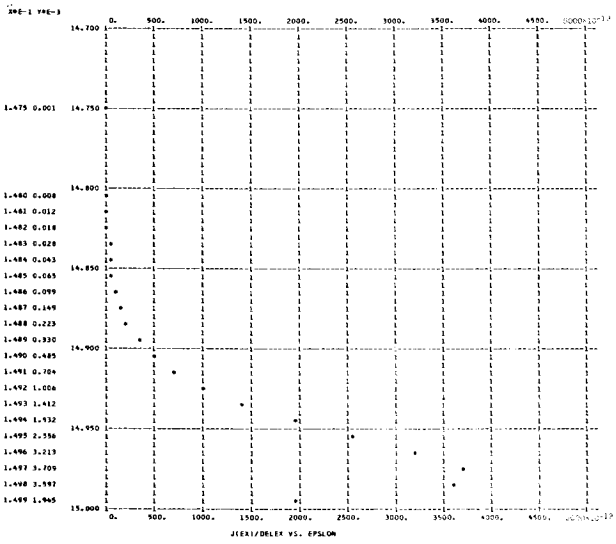
NEM = 0.14365730E 24 NEE = 0.71835562E-06 VXAV = 0.18716145E 09 KEXAV = 0.99588815E 01 KEXFL = 0.18639268E 10

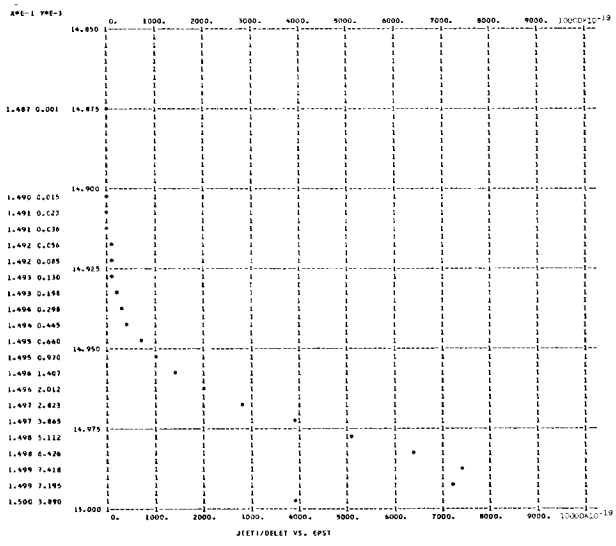
J = 0.215386E-16 KETAV= 0.997944E 01 KETFL= 0.186777E 10 TZERO = 0.772050E 05 TD = 0.159220E 03

Figure 3. - Continued.







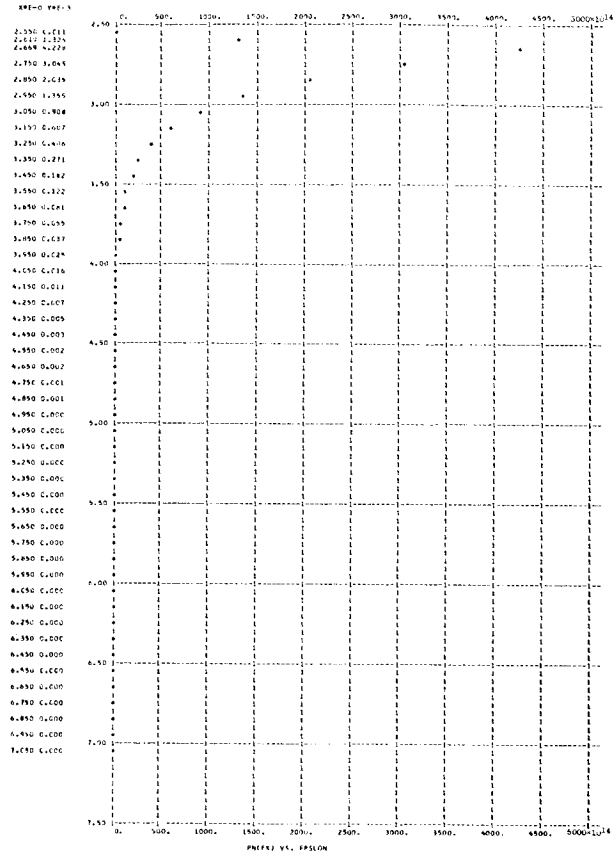


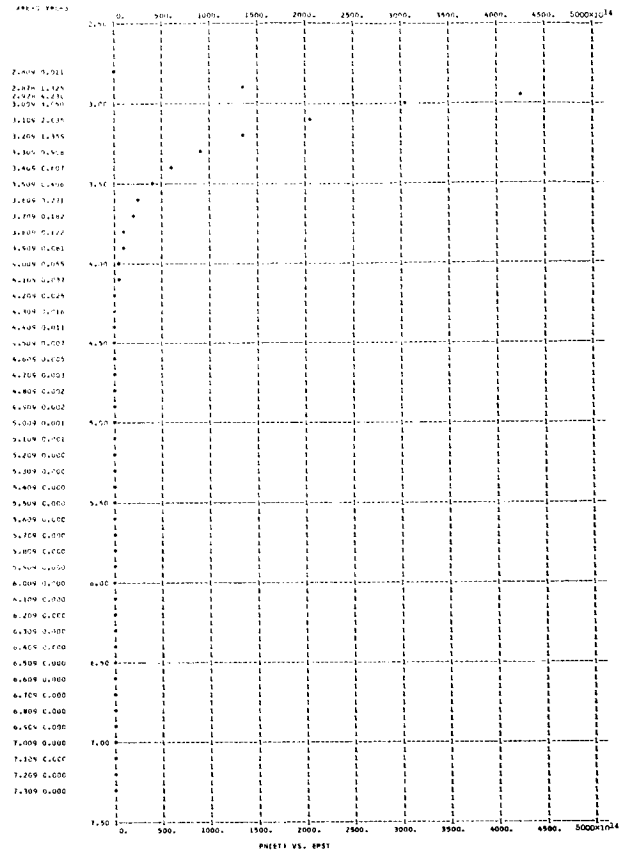
T = 0. E = 0.31622783E 07 PHI = 2.00 AMU = 15.00 EVMAX = 16.3821

NEM = 0.26395185E 24 NEE = 0.58613247E-06 VXAV = 0.22938295E 09 KEXAV = 0.14958895E 02 KEXFL = 0.34313221E 10

J = 0.215387E-16 KETAV= 0.149794E 02 KETFL= 0.343603E 10 TZERO = 0.115887E 06 TD = 0.159112E 03

Figure 3. - Continued.



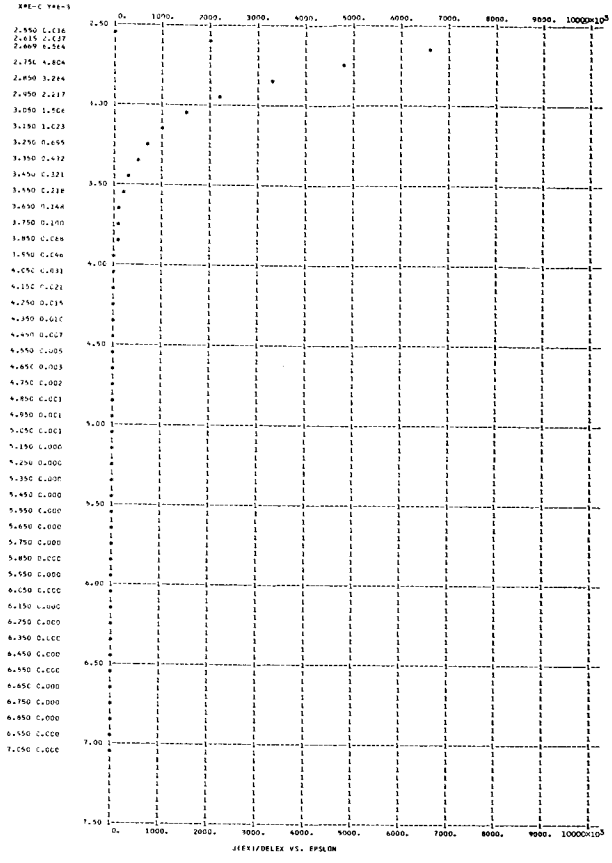


T = 0.30000000E 04 E = 0.10000002E 07 PHI = 2.00 AMU = 1.00 EVMAX = 2.6385

NEM = 0.49014199E 22 NEE = 0.12304206E 18 VXAV = 0.10052589E 09 KEXAV = 0.28779706E 01 KEXFL = 0.29035156E 09

J = 0.198150E 07 KETAV= 0.313655E 01 KETFL= 0.316345E 09 TZERO = 0.242656E 05 TD = 0.203907E 04

Figure 3. - Continued.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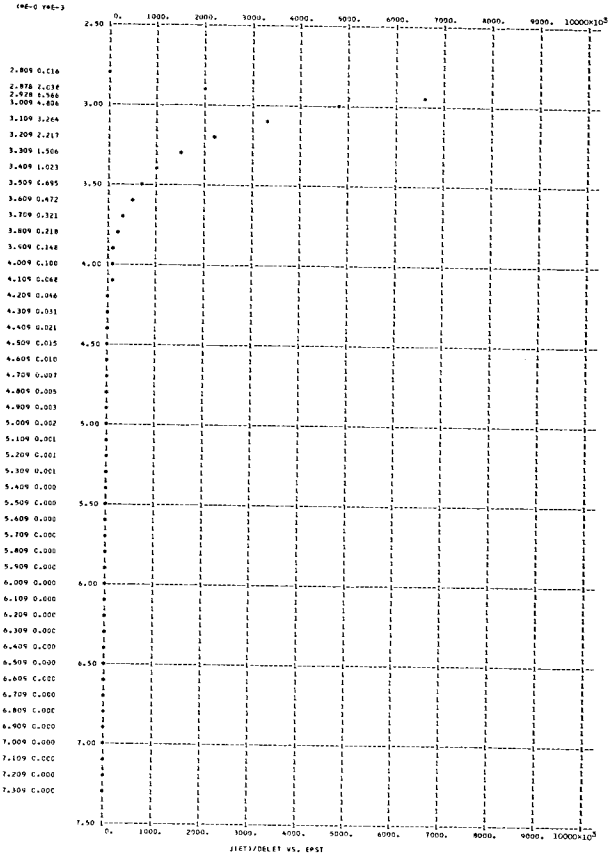
JEEXI/DELEX VS. EPSLON


0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000×10³
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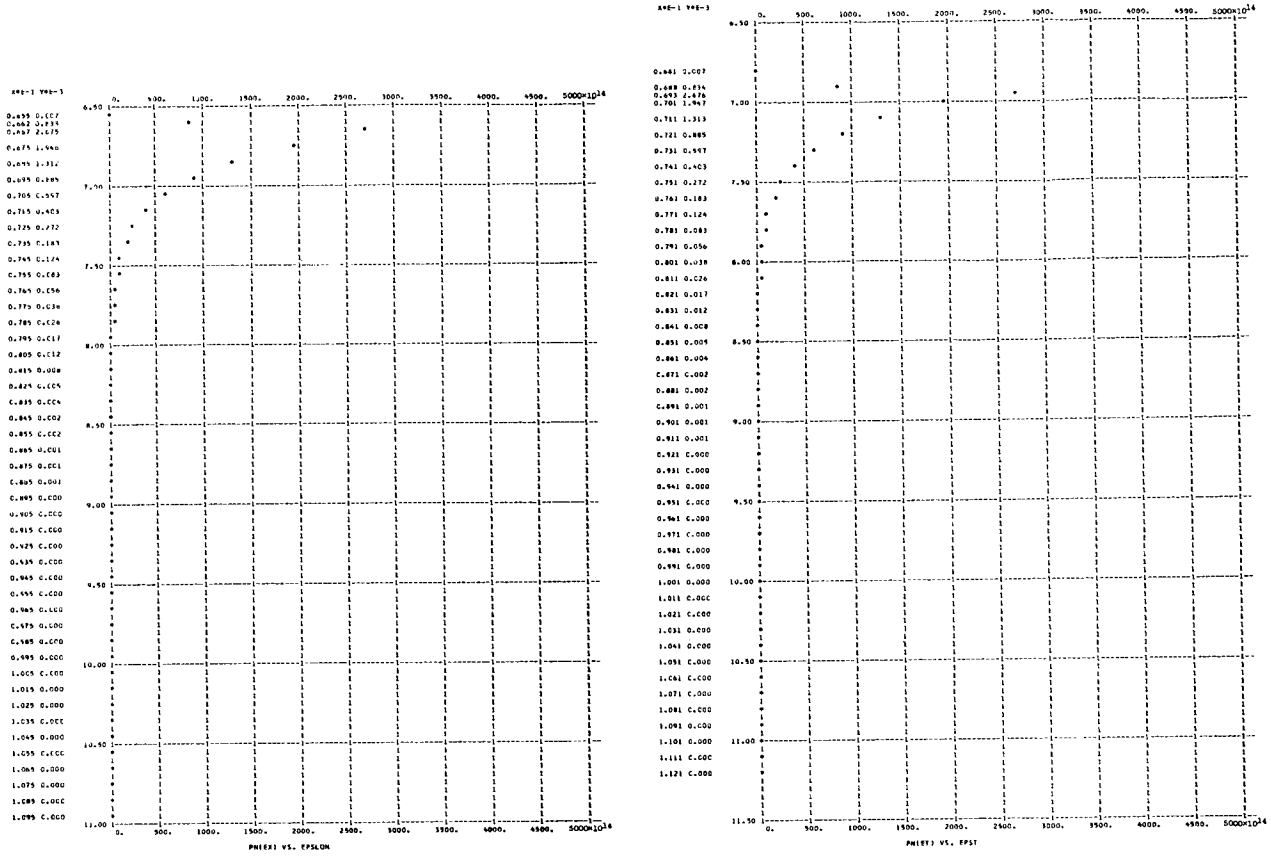
JIET3/DELET VS. EPST

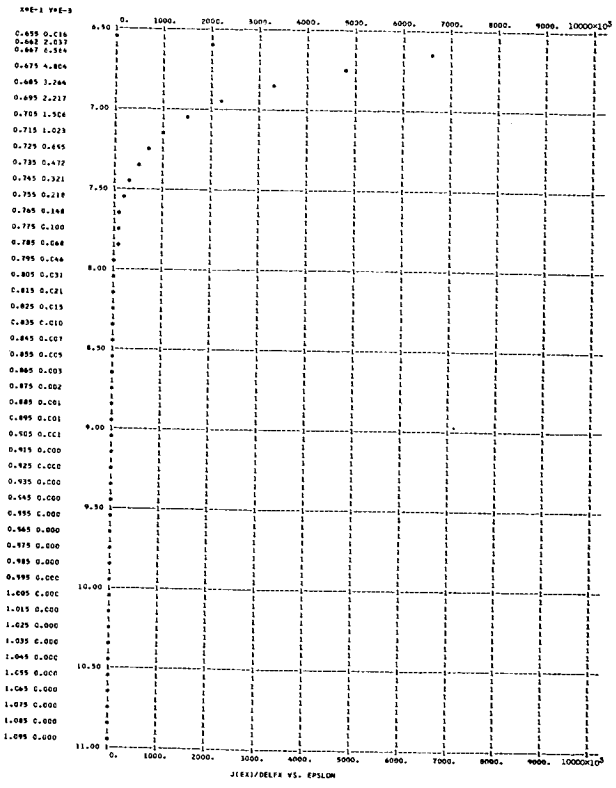


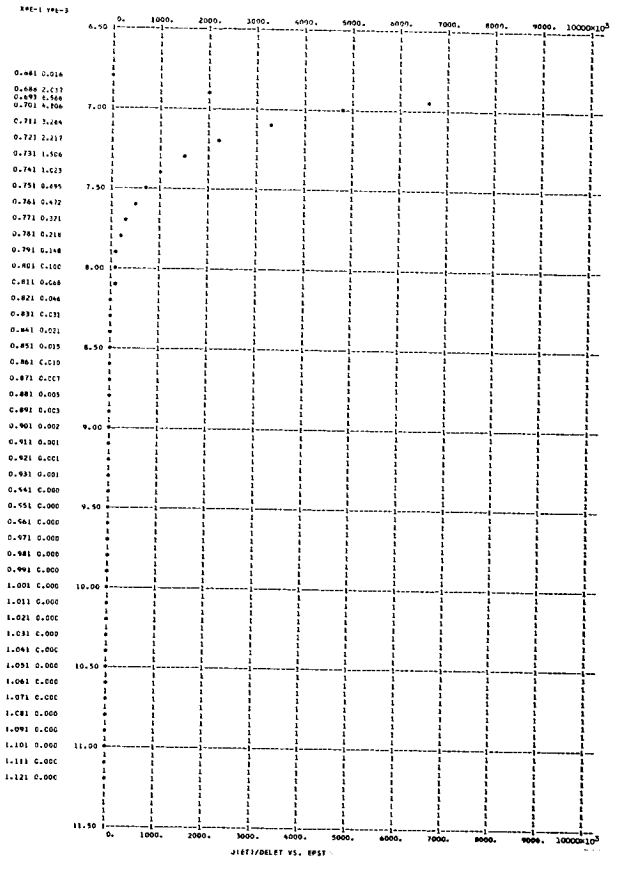
T = 0.30000000E 04 E = 0.10000002E 07 PHI = 2.00 AMU = 5.00 EVMAX = 6.6385

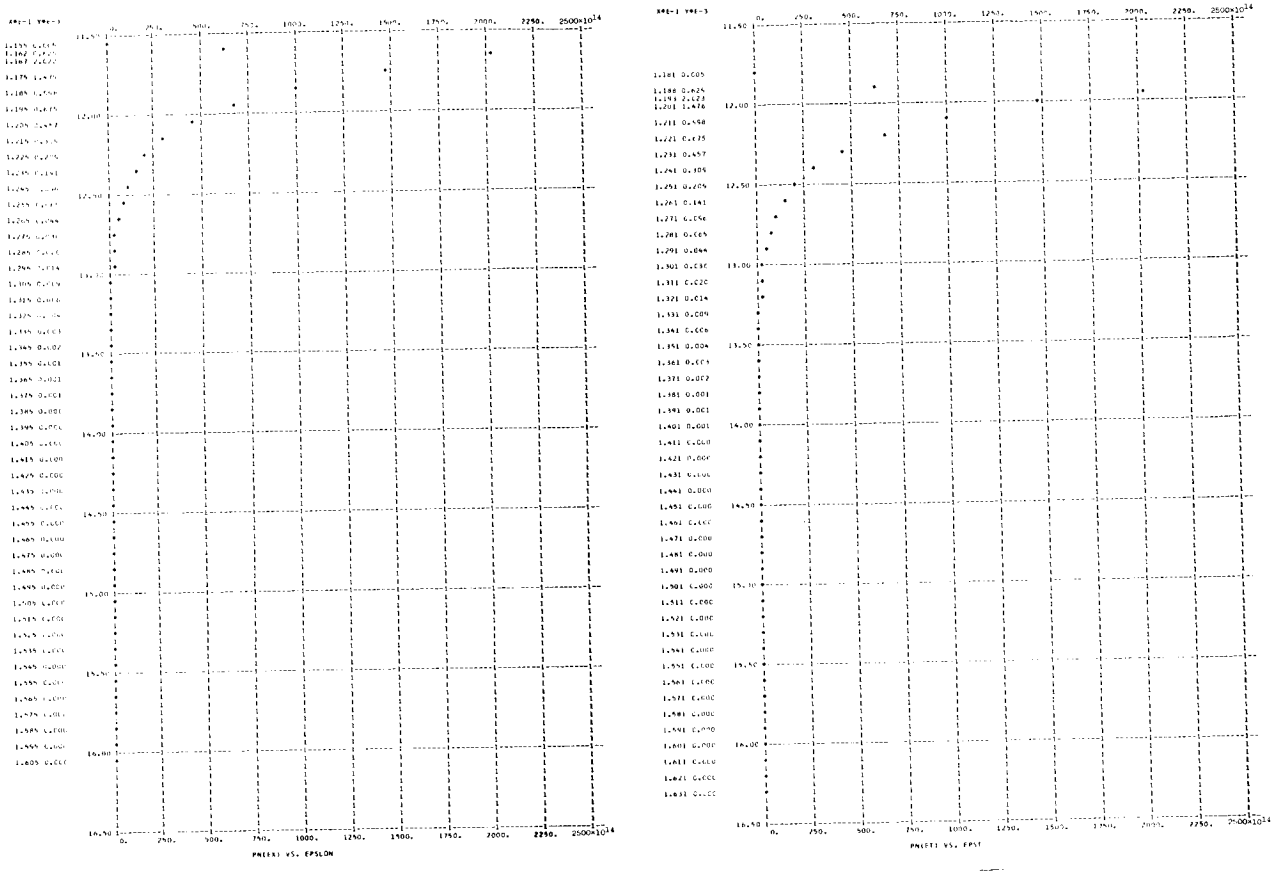
NEM = 0.50929833E 23 NEE = 0.79500186E 17 VXAV = 0.15557937E 09 KEXAV = 0.68837263E 01 KEXFL = 0.10716817E 10

J = 0.198145E 07 KETAV= 0.714230E 01 KETFL= 0.111191E 10 TZERO = 0.552557E 05 TD = 0.201794E 04

Figure 3. - Continued.


J(EXI/DELFX VS. EPSLON


J(ETI/DELET VS. EPST

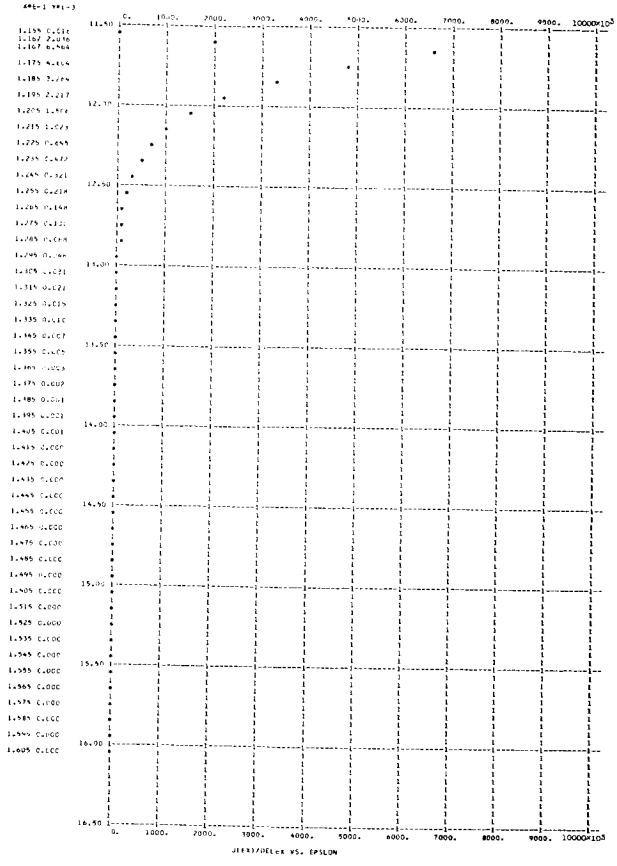


T = 0.30000000E 04 E = 0.10000002E 07 PHI = 2.00 AMU = 10.00 EVMAX = 11.6385

NEM = 0.14377540E 24 NEE = 0.60495131E 17 VXAV = 0.20445497E 09 KEXAV = 0.11885605E 02 KEXFL = 0.24306273E 10

J = 0.198144E 07 KETAV= 0.121442E 02 KETFL= 0.248349E 10 TZERO = 0.939523E 05 TD = 0.201085E 04

Figure 3. - Continued.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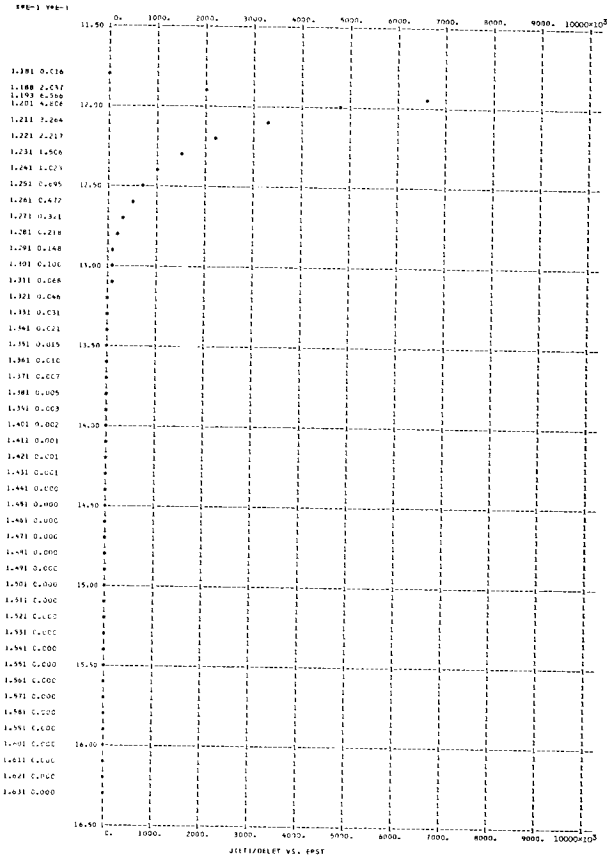
JEER3/DELER VS. EPSLON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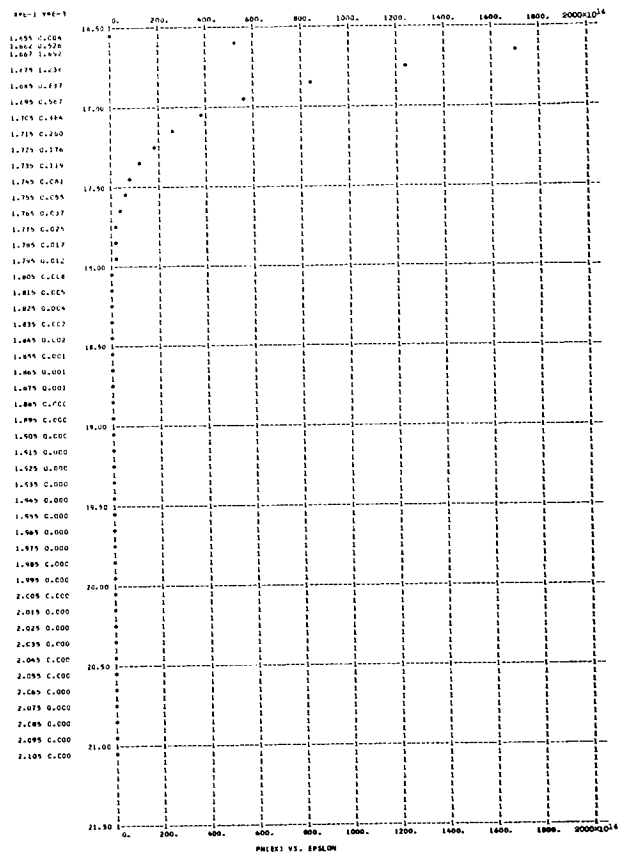
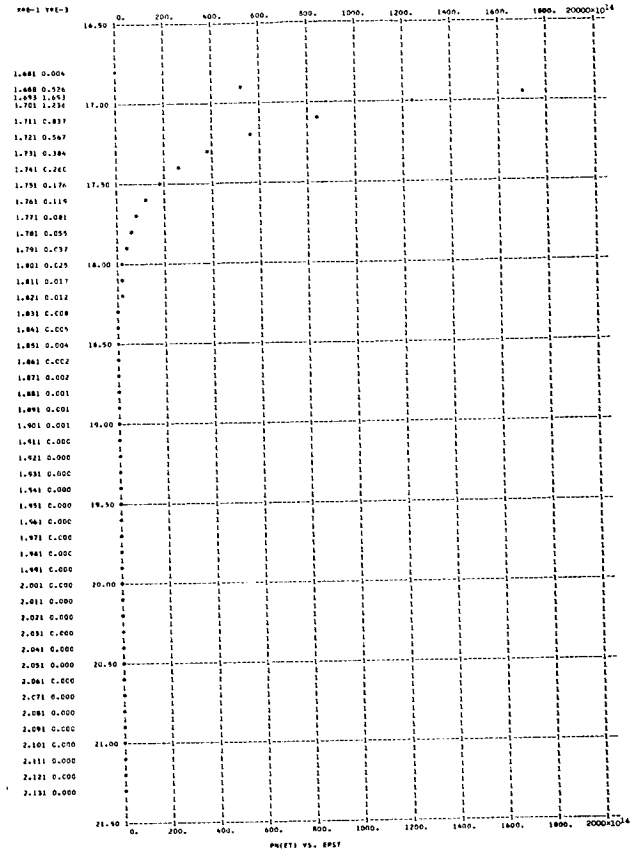
JEEF3/DELEF VS. EPST



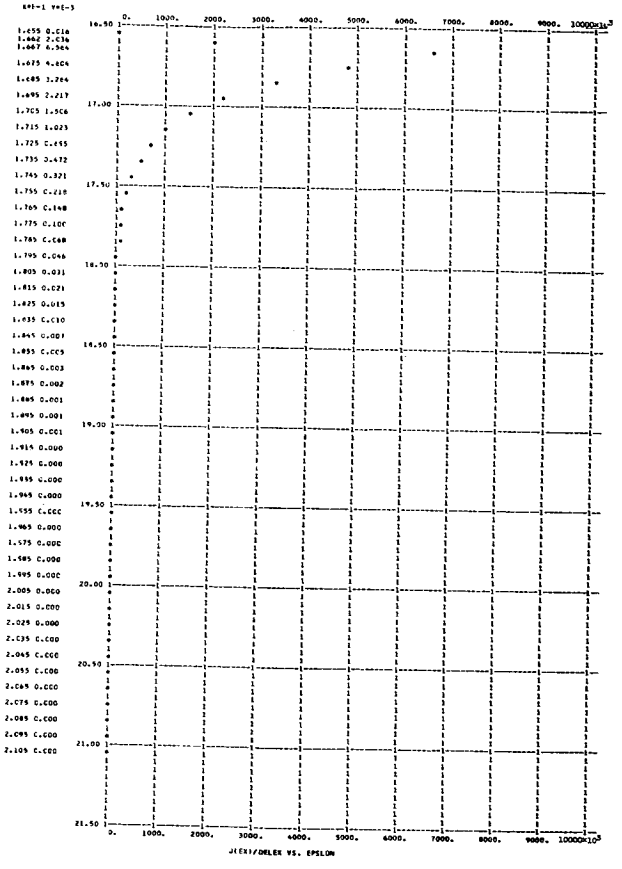


T = 0.30000000E 04 E = C.10000002E 07 PHI = 2.00 AMU = 15.00 EVMAX = 16.6385

NEM = 0.26404823E 24 NEE = 0.50751562E 17 VXAV = 0.24370687E 09 KEXAV = 0.16886393E 02 KEXFL = 0.41158012E 10

J = 0.198143E 07 KETAV= 0.171450E 02 KETFL= 0.417882E 10 TZERO = 0.132640E 06 TD = 0.200782E 04

Figure 3. - Continued.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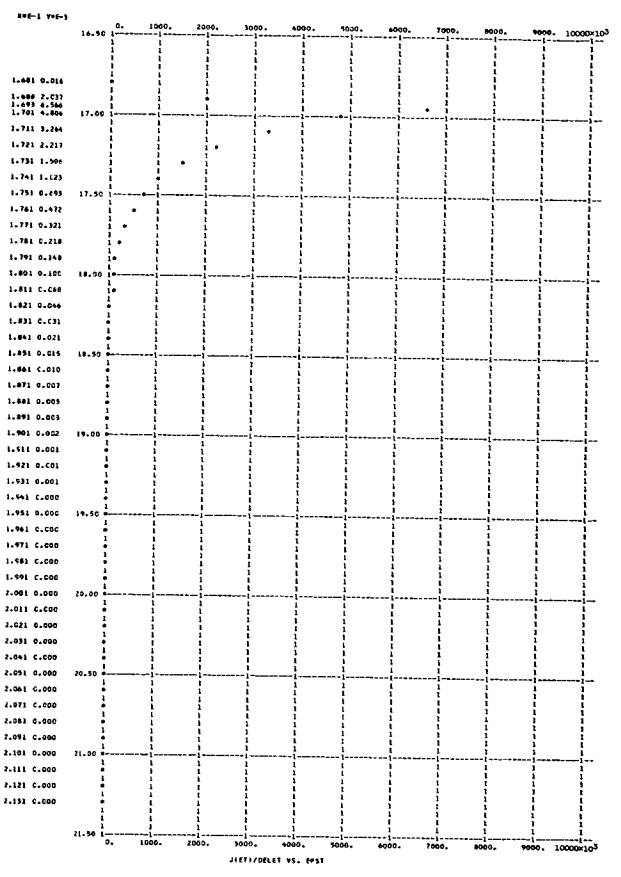
J(EX)/DELEX VS. EPSLON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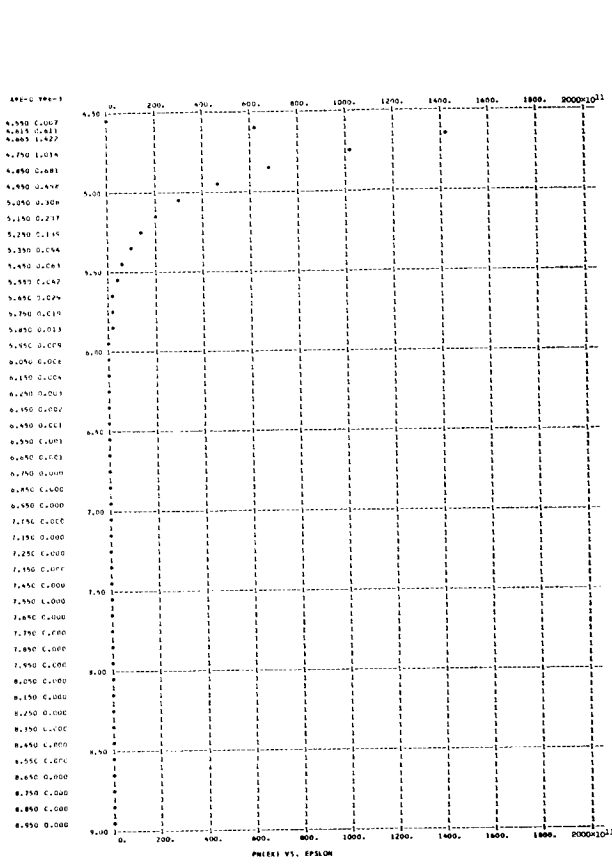
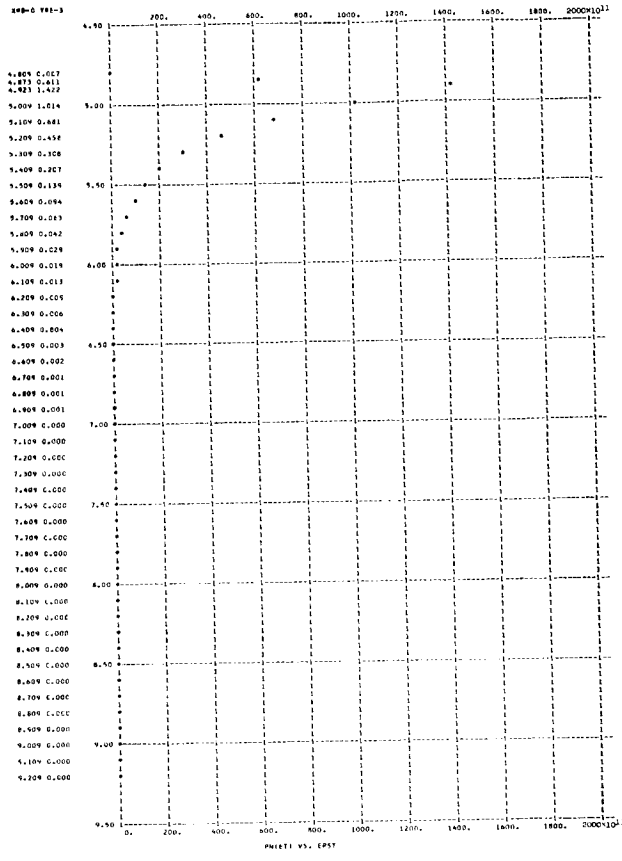
J(ET)/DELET VS. EPST



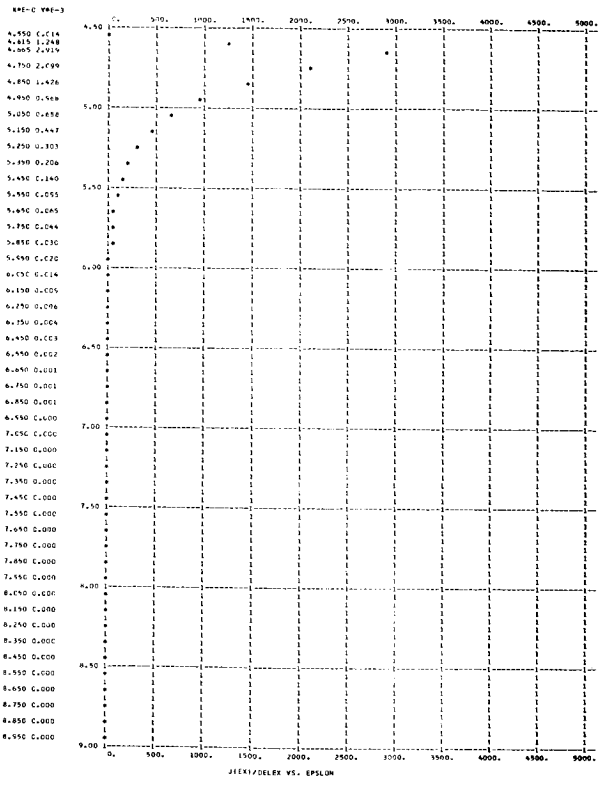


T = 0.300000C0E 04 E = 0.1C000002E 07 PHI = 4.00 AMU = 1.00 EVMAX = 4.6295

NEM = 0.49014194E 22 NEE = 0.42840869E 14 VXAV = 0.13087267E 09 KEXAV = 0.48725007E 01 KEXFL = 0.63851024E 09

J = 0.898193E 03 KETAV= 0.513102E 01 KETFL= 0.672343E 09 TZERO = 0.396956E 05 TD = 0.202404E 04

Figure 3. - Continued.


RPE-C YRE-3
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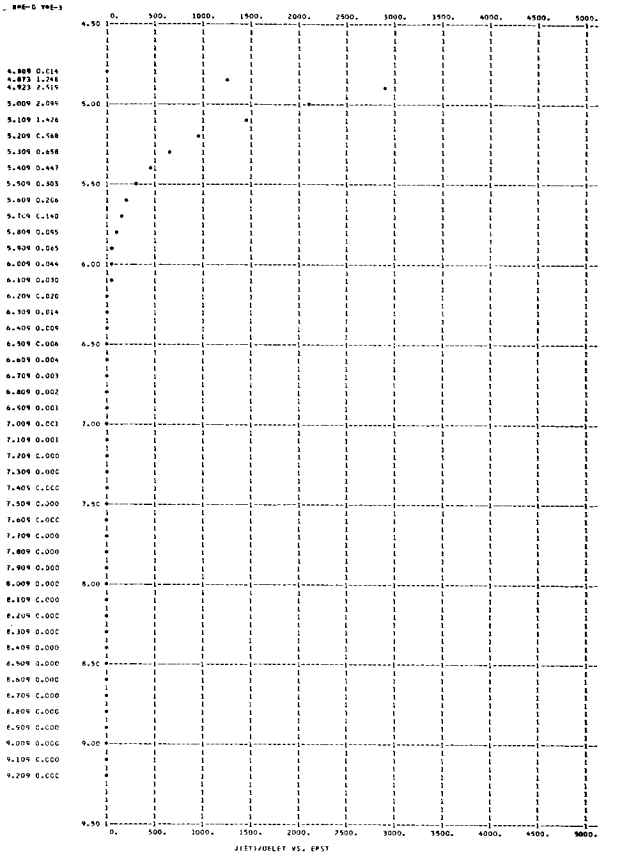
JIEXI/DELEX VS. EPSLON


RPE-C YRE-3
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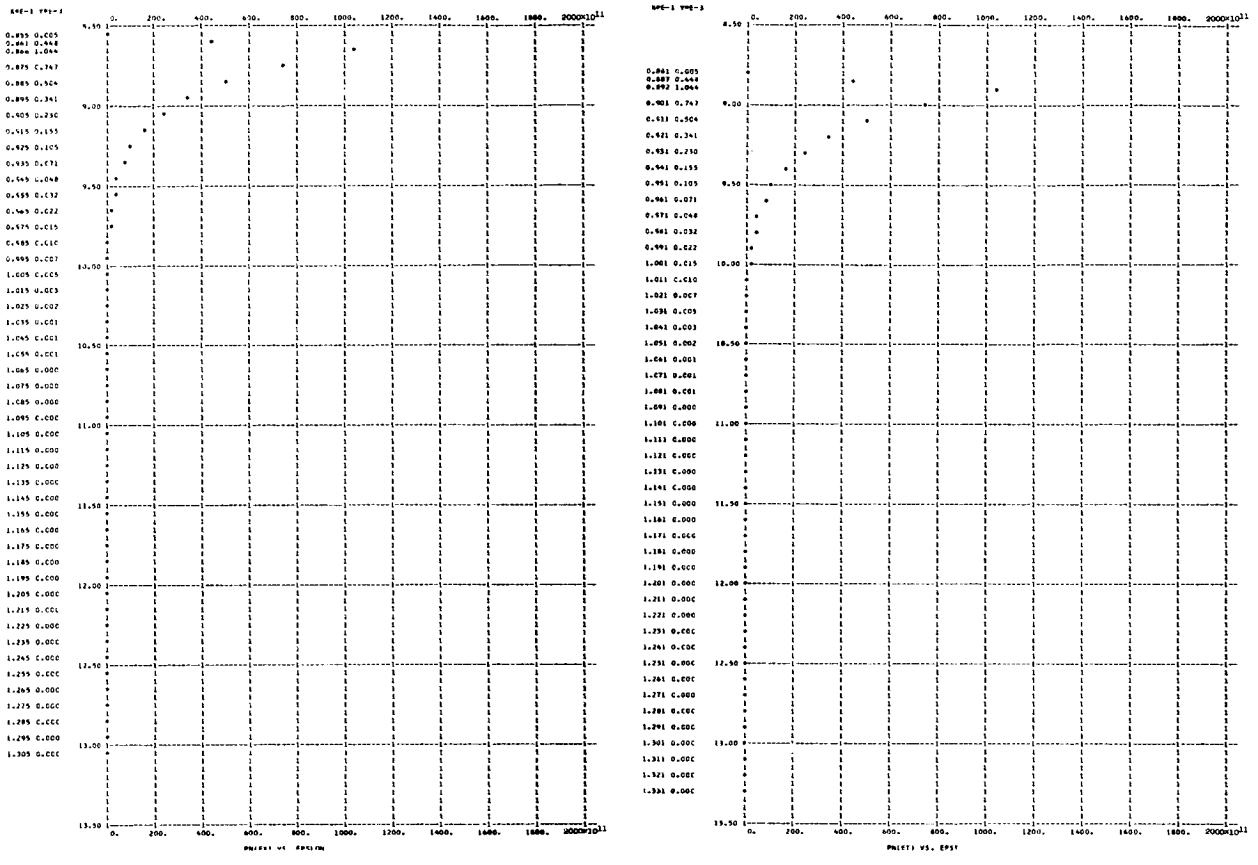
JIETJ/DELET VS. EPST

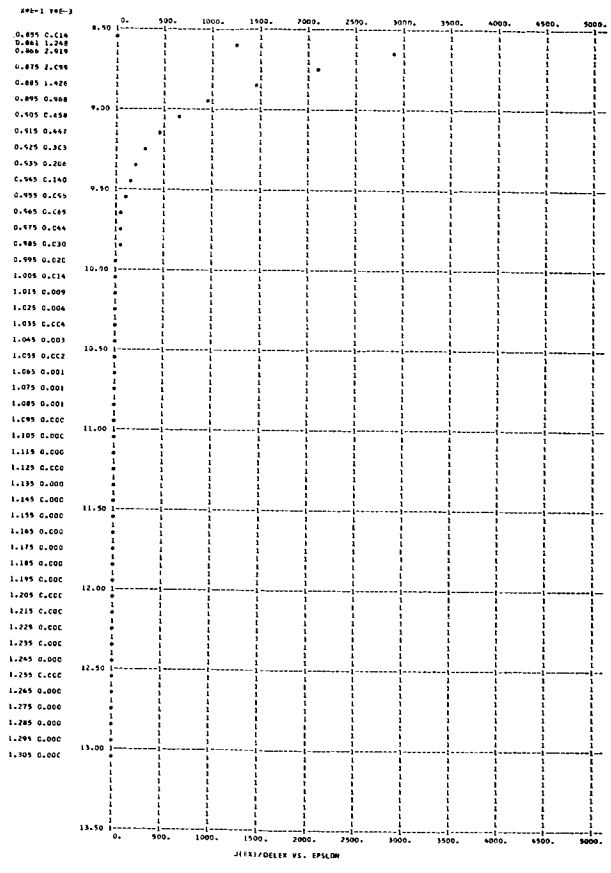


T = 0.30000000E 04 E = C.10000002E 07 PHI = 4.00 AMU = 5.00 EVMAX = 8.6295

NEM = 0.50929833E 23 NEE = 0.31735481E 14 VXAV = 0.17666835E 09 KEXAV = 0.88752633E 01 KEXFL = 0.15686146E 10

J = 0.898186E 03 KETAV= 0.913378E 01 KETFL= 0.161429E 10 TZERO = 0.706626E 05 TD = 0.201373E 04

Figure 3. - Continued.


0. 500. 1000. 1500. 2000. 2500. 3000. 3500. 4000. 4500. 5000.
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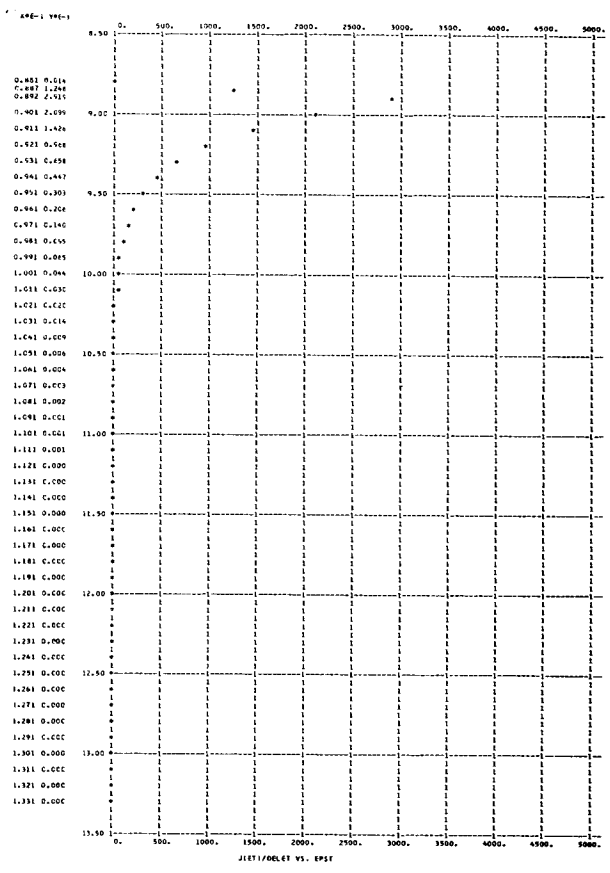
JLEXI/DELEX VS. EPSLON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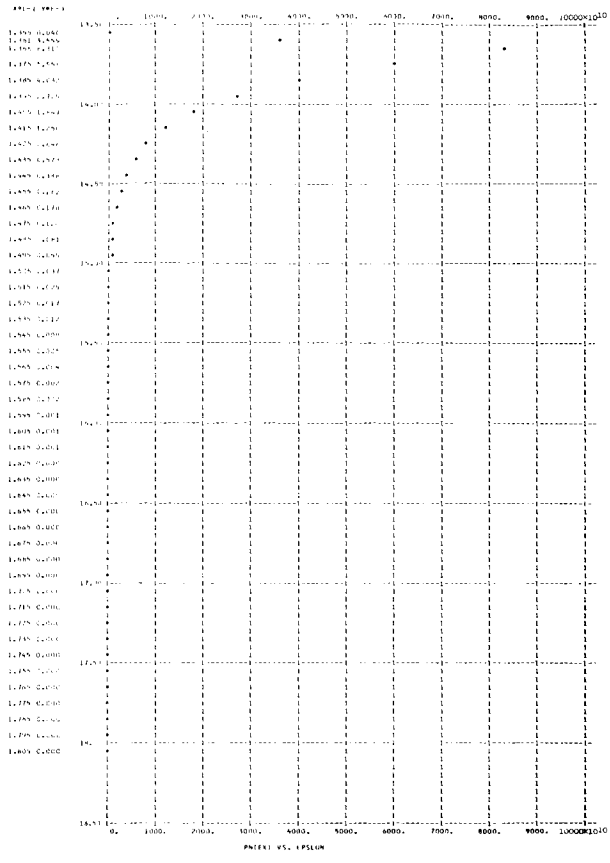
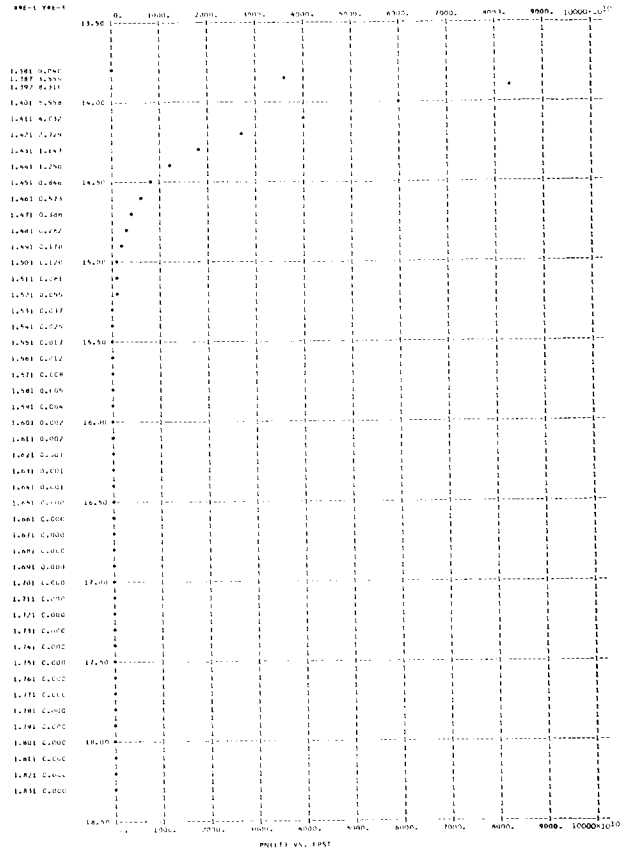
JLETI/DELET VS. EPST



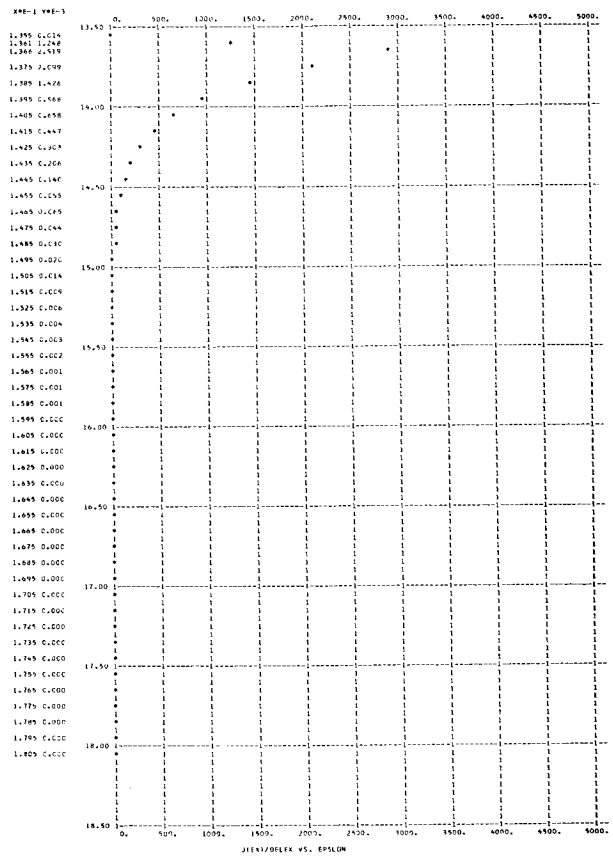


T = 0.3C000000E 04 E = 0.1C000002E 07 PHI = 4.00 AMU = 10.00 EVMAX = 13.6295

NEM = 0.14377540E 24 NEE = 0.25378676E 14 VXAV = 0.22091943E 09 KEXAV = 0.13876529E 02 KEXFL = 0.30661111E 10

J = 0.898184E 03 KETAV= 0.141350E 02 KETFL= 0.312322E 10 TZERO = 0.109354E 06 TO = 0.200894E 04

Figure 3. - Continued.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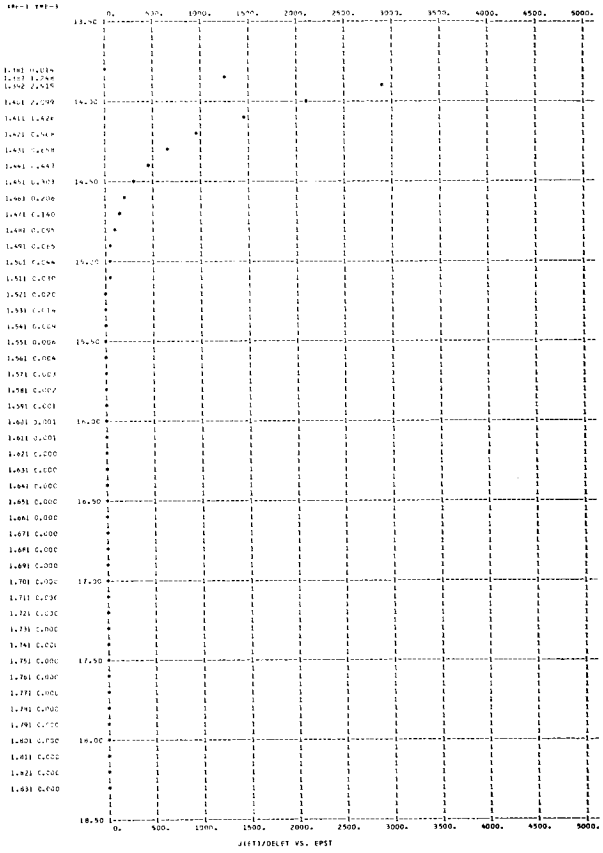
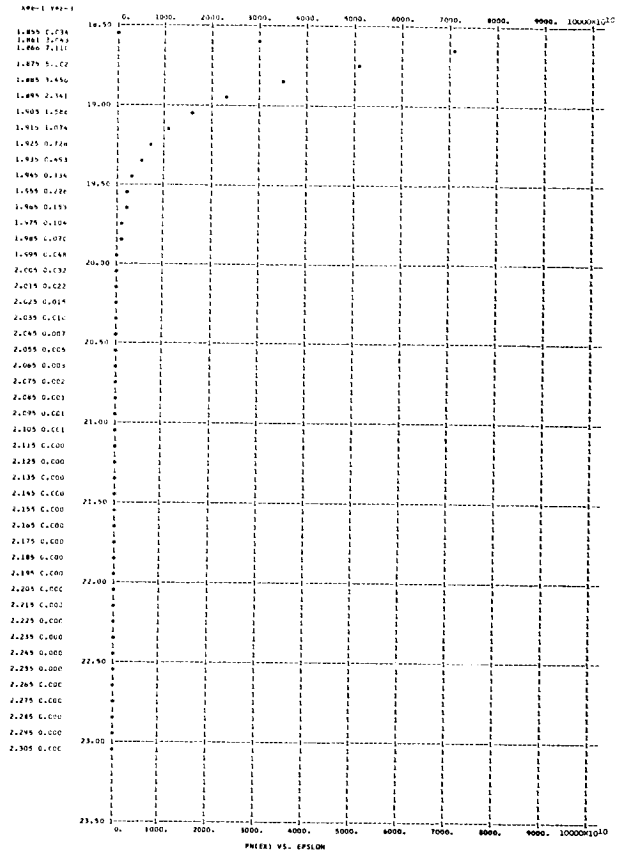
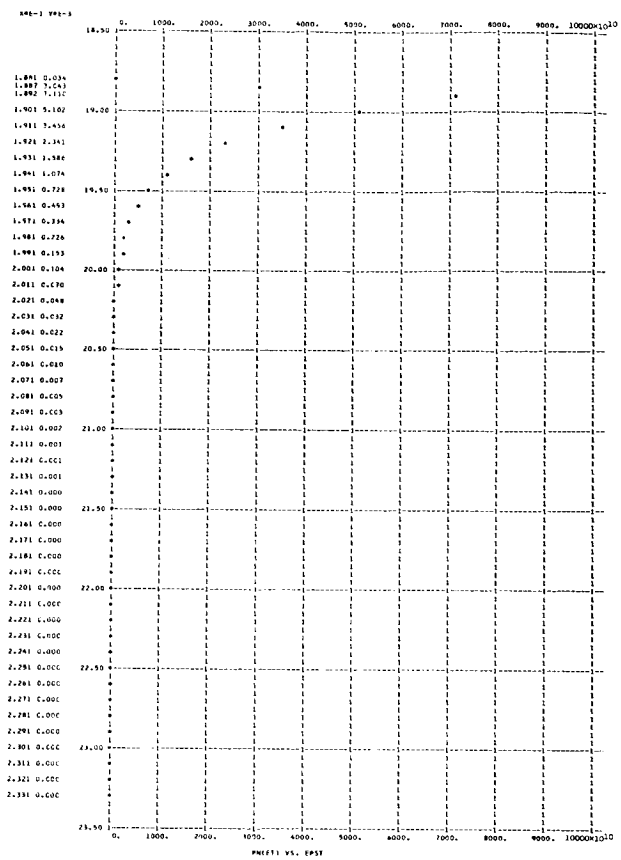
13.50
14.00
14.50
15.00
15.50
16.00
16.50
17.00
17.50
18.00
18.50
J(EX)/DELEX VS. EPSLON


0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000.
16.50
17.00
17.50
18.00
18.50
J(EX)/DELEX VS. EPST



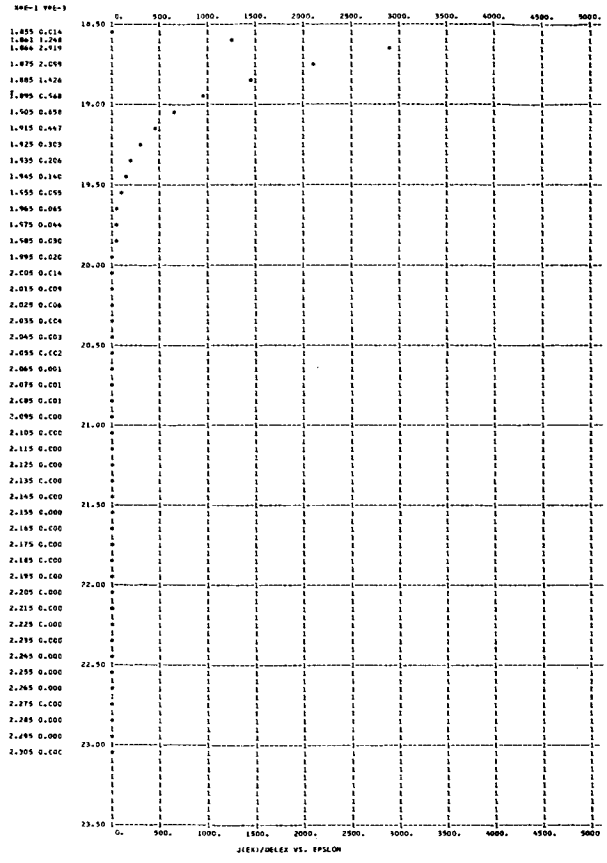


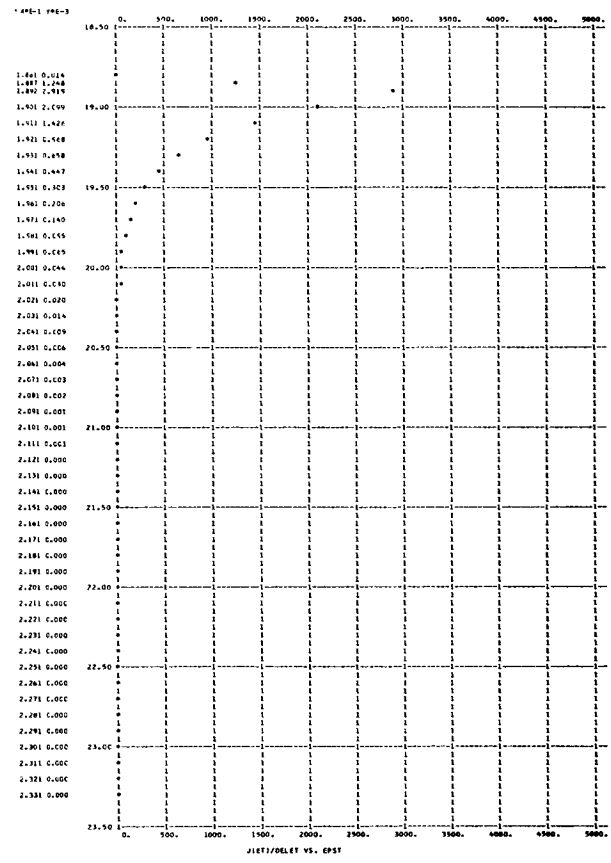
T = 0.30000000E 04 E = 0.10000002E 07 PHI = 4.00 AMU = 15.00 EVMAX = 18.6295

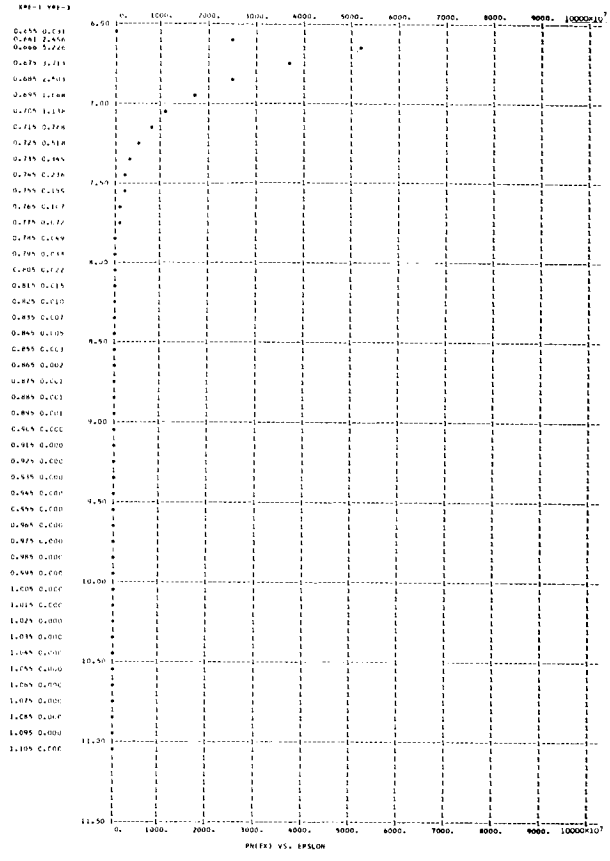
NEM = 0.26404823E 24 NEE = 0.21758696E 14 VXAV = 0.25767354E 09 KEXAV = 0.18877137E 02 KEXFL = 0.48645835E 10

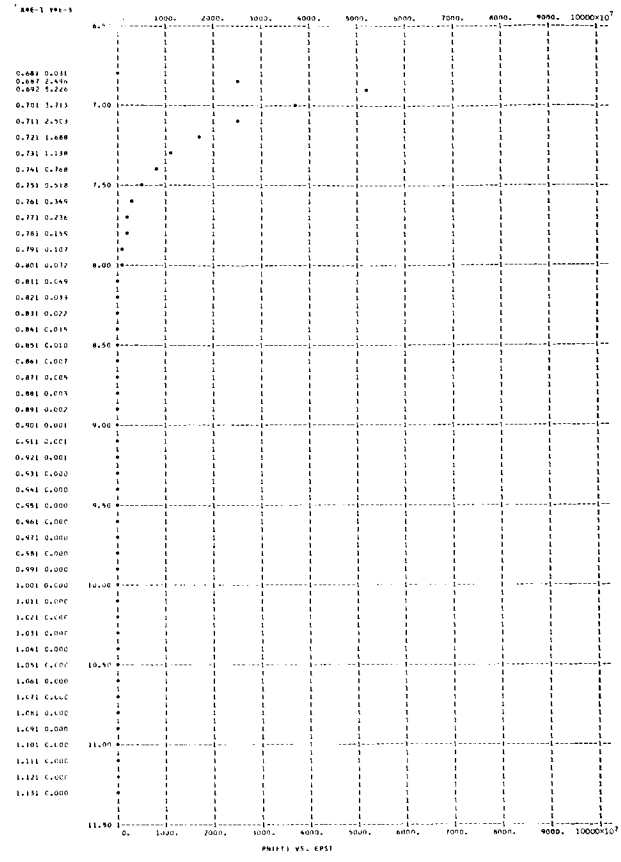
J = 0.898184E 03 KETAV= 0.191356E 02 KETFL= 0.493120E 10 TZERO = 0.148041E 06 TD = 0.200657E 04

Figure 3. – Continued.


0. 500. 1000. 1500. 2000. 2500. 3000. 3500. 4000. 4500. 5000.
18.50
19.00
19.50
20.00
20.50
21.00
21.50
22.00
22.50
23.00
23.50
J(EK)/DELEX VS. EPSLON


0. 500. 1000. 1500. 2000. 2500. 3000. 3500. 4000. 4500. 5000.
18.50
19.00
19.50
20.00
20.50
21.00
21.50
22.00
22.50
23.00
23.50
J(ET)/DELET VS. EPST



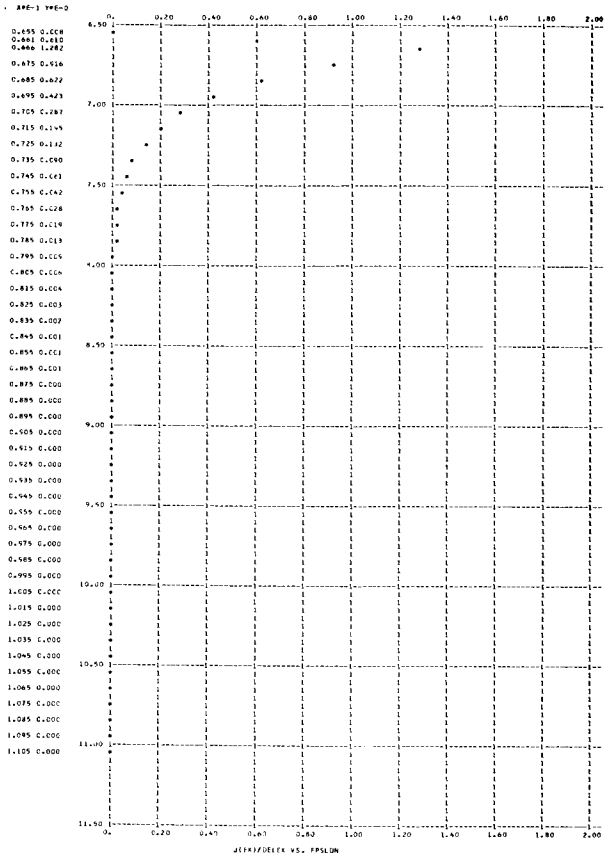


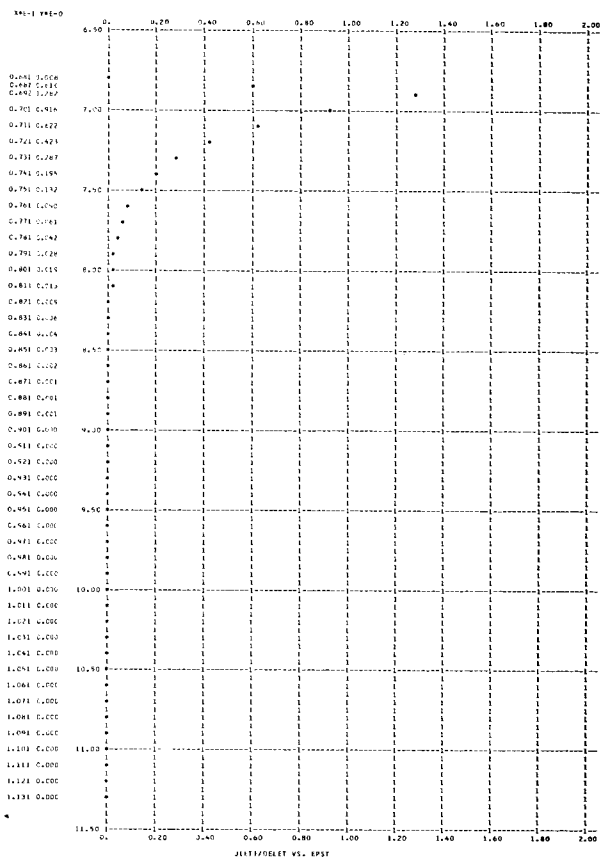
T = 0.30000000E 04 E = 0.10000002E 07 PHI = 6.00 AMU = 1.00 EVMAX = 6.6265

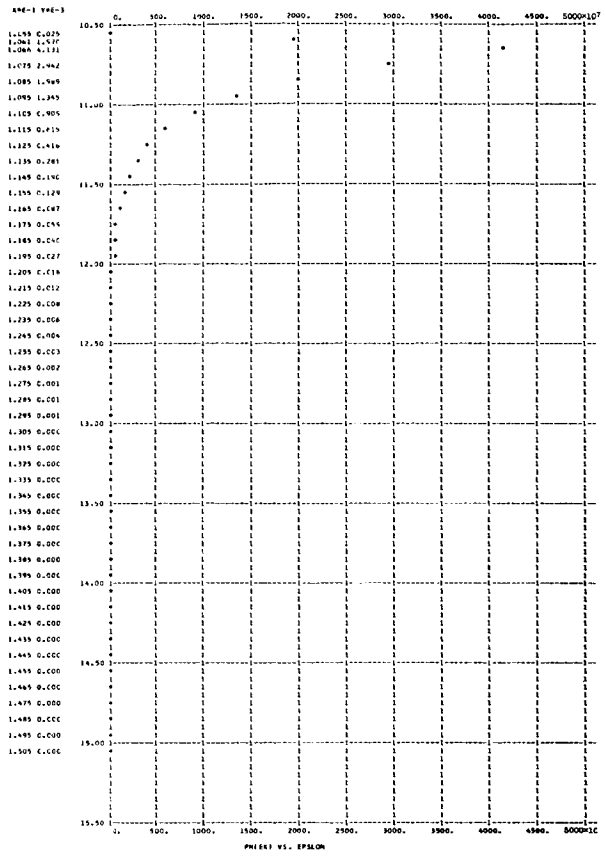
NEM = 0.49014194E 22 NEE = 0.15934572E 11 VXAV = 0.15543896E 09 KEXAV = 0.68713092E 01 KEXFL = 0.10687840E 10

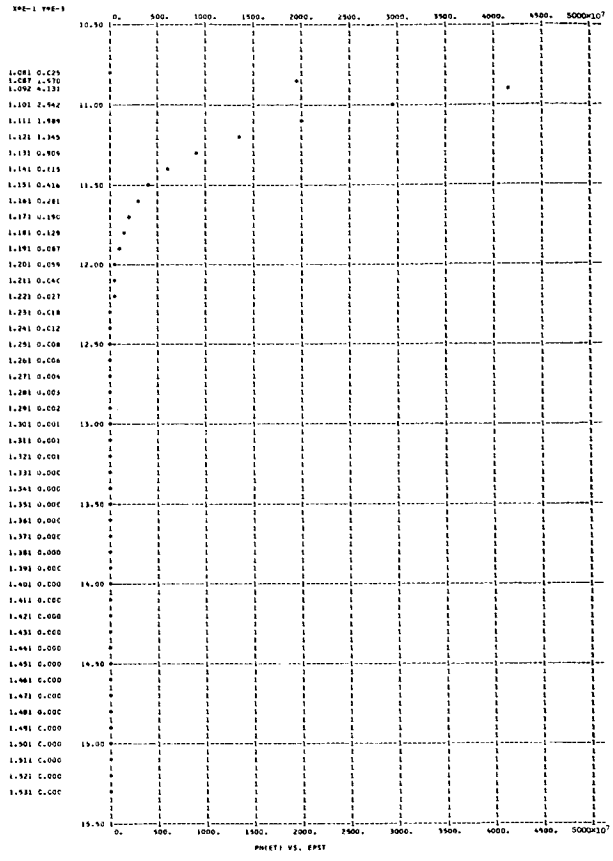
J = 0.396792E-00 KETAV= 0.712983E 01 KETFL= 0.110897E 10 TZERO = 0.551592E 05 TD = 0.201748E 04

Figure 3. - Continued.


JERK/DELEK VS. EPSLON


JERT/DELET VS. EPST



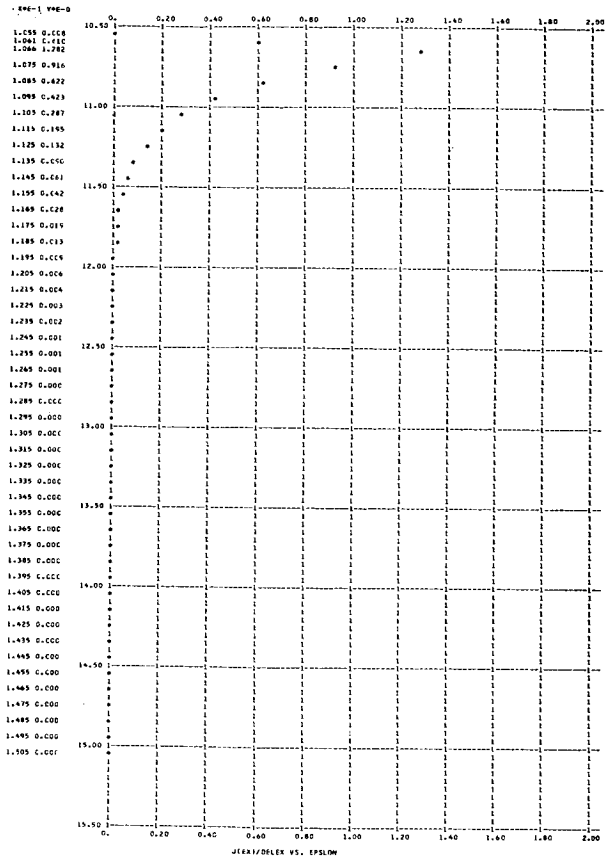


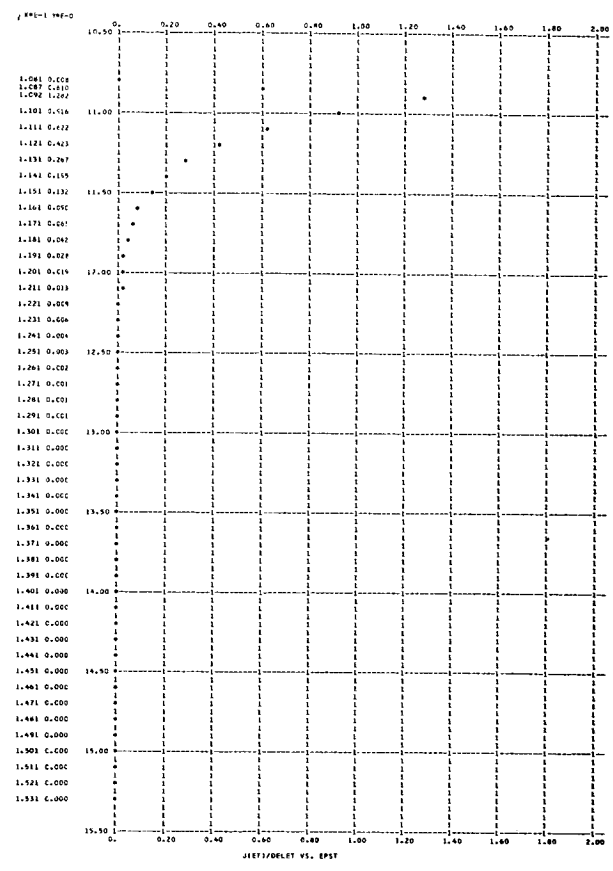
T = 0.30000000E 04 E = 0.10000002E 07 PHI = 6.00 AMU = 5.00 EVMAX = 10.6265

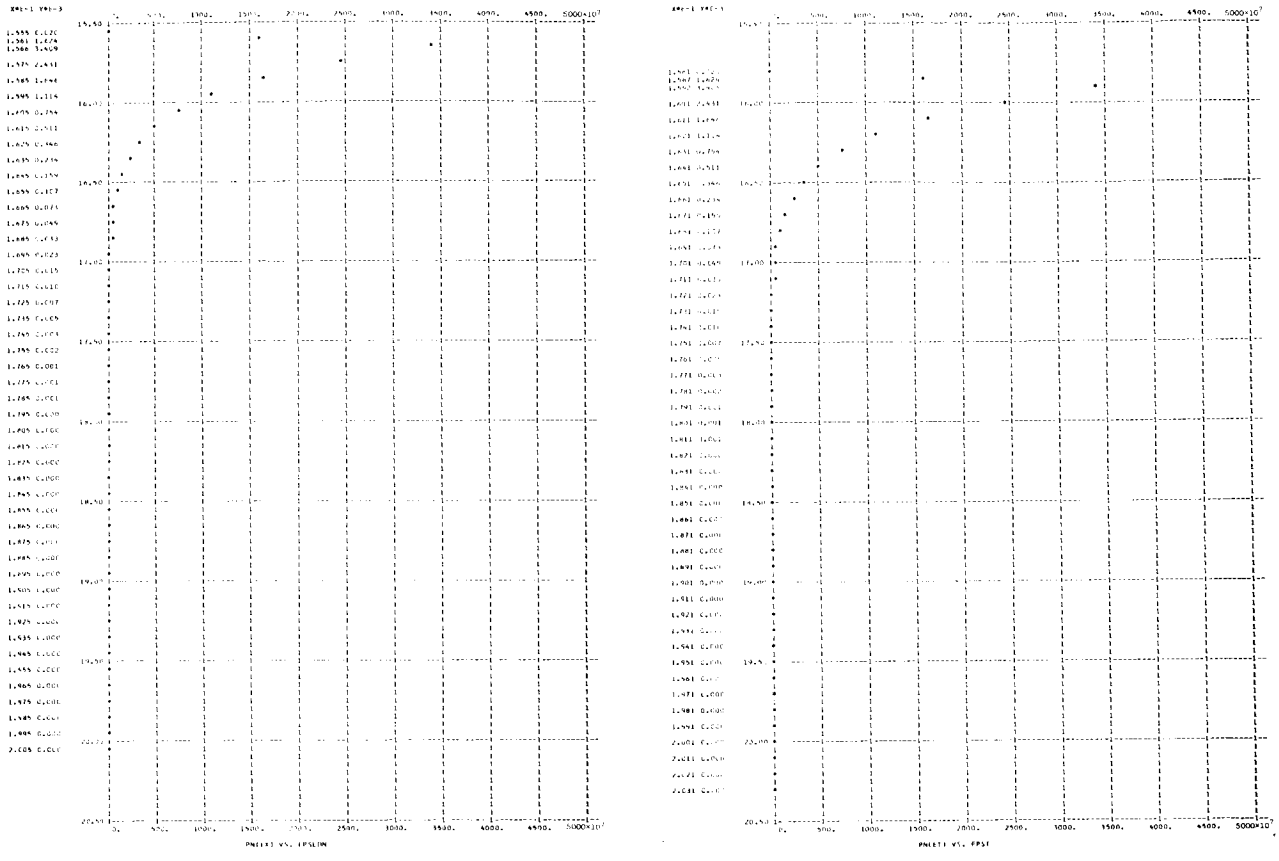
NEM = 0.50929833E 23 NEE = 0.12666106E 11 VXAV = 0.19554918E 09 KEXAV = 0.10872947E 02 KEXFL = 0.21267750E 10

J = 0.396791E-00 KETAV= 0.111315E 02 KETFL= 0.217733E 10 TZERO = 0.861175E 05 TO = 0.201130E 04

Figure 3. - Continued.


JIERJ/DELEX VS. EPSLOW


JIEFJ/DELET VS. EPST

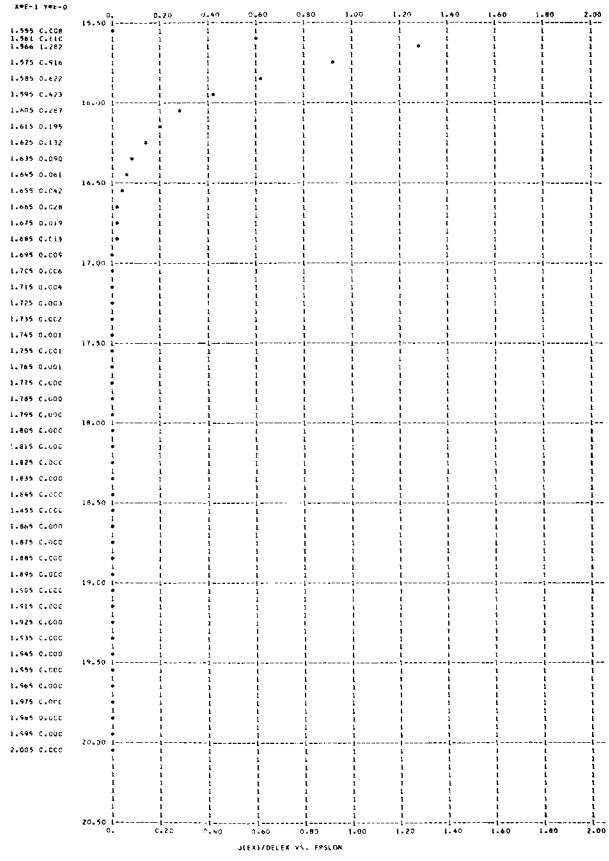


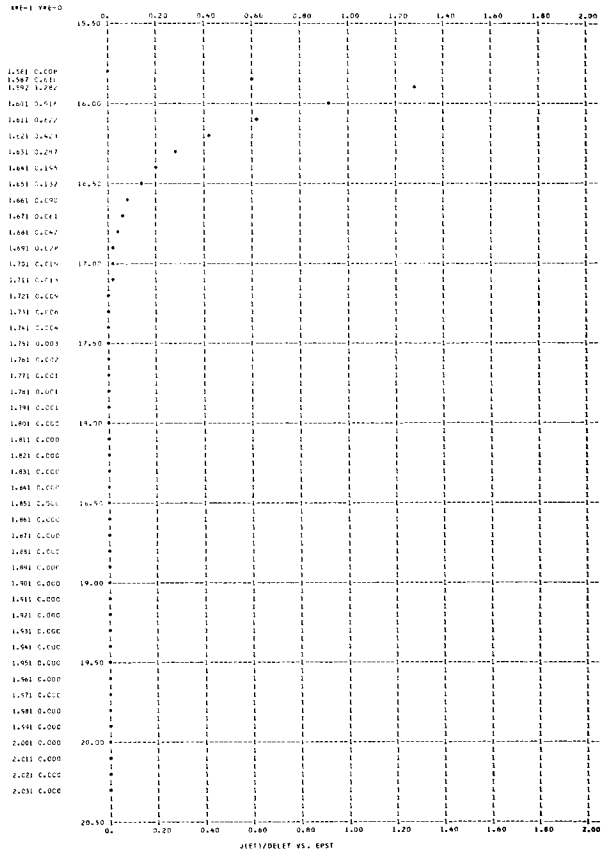
T = 0.30000000E 04 E = 0.10000002E 07 PHI = 6.00 AMU = 10.00 EVMAX = 15.6265

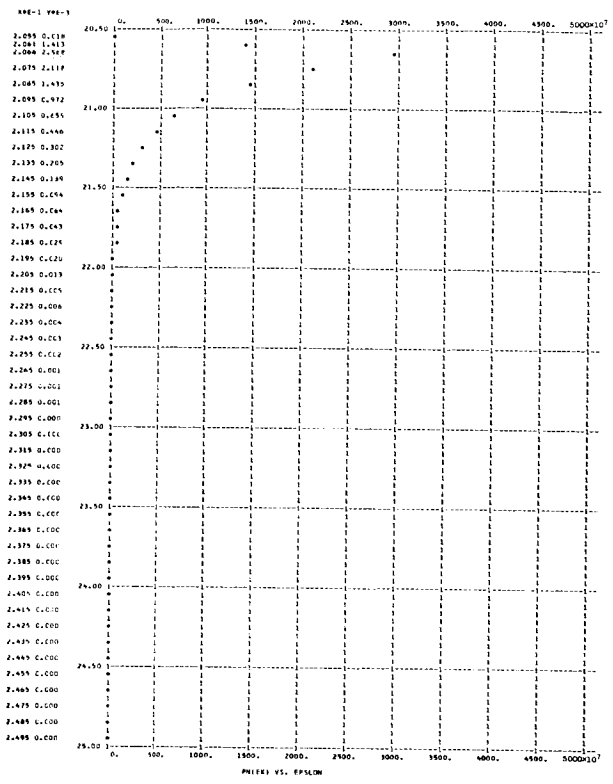
NEM = 0.14377540E 24 NEE = 0.10482379E 11 VXAV = 0.23628654E 09 KEXAV = 0.15873861E 02 KEXFL = 0.37512632E 10

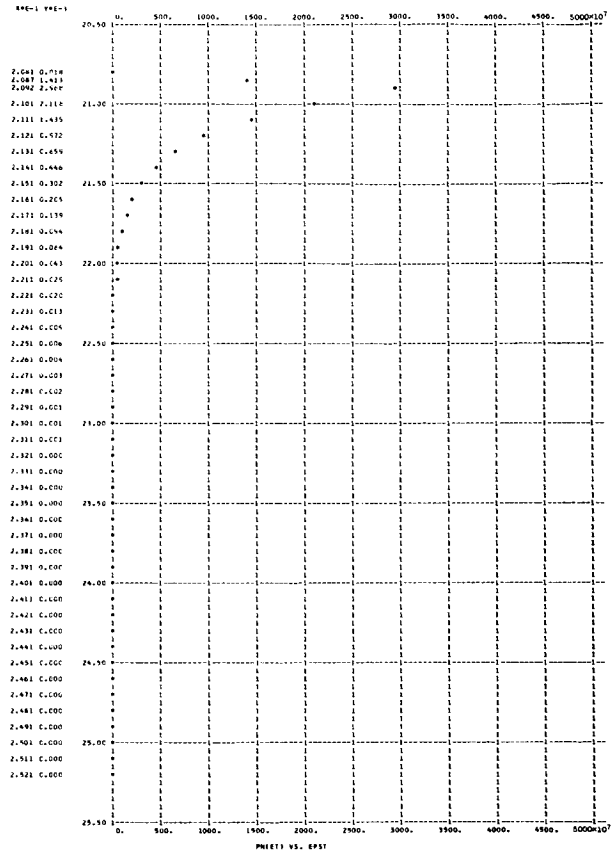
J = 0.396791E-00 KETAV= 0.161324E 02 KETFL= 0.381235E 10 TZERO = 0.124807E 06 TD = 0.200781E 04

Figure 3. - Continued.


J(EX)/DELEX VS. EPSLON


J(ET)/DELET VS. EPST



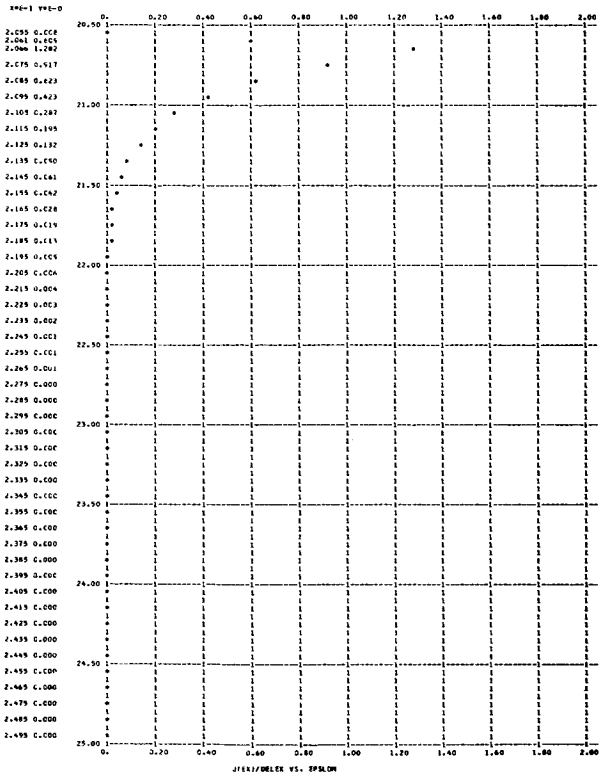


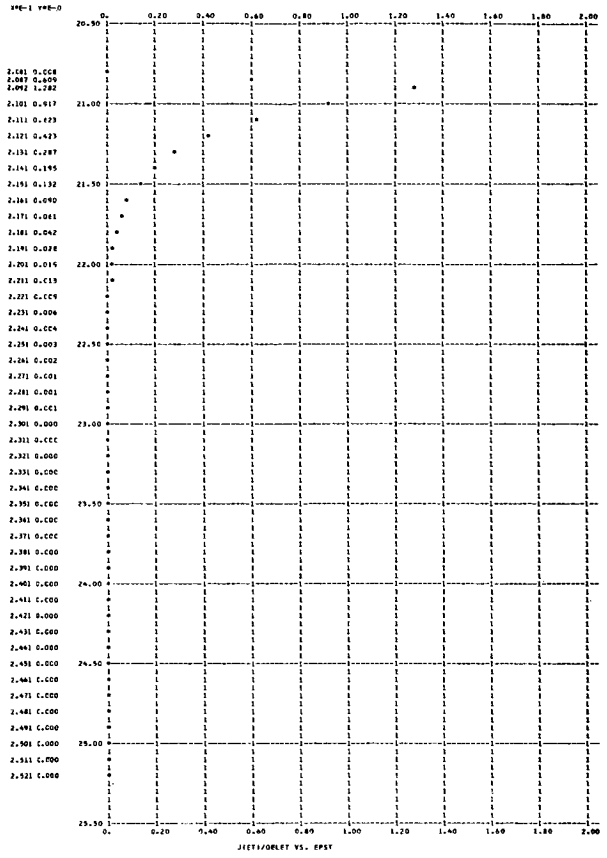
T = 0.30000000E 04 E = 0.10000002E 07 PHI = 6.00 AMU = 15.00 EVMAX = 20.6265

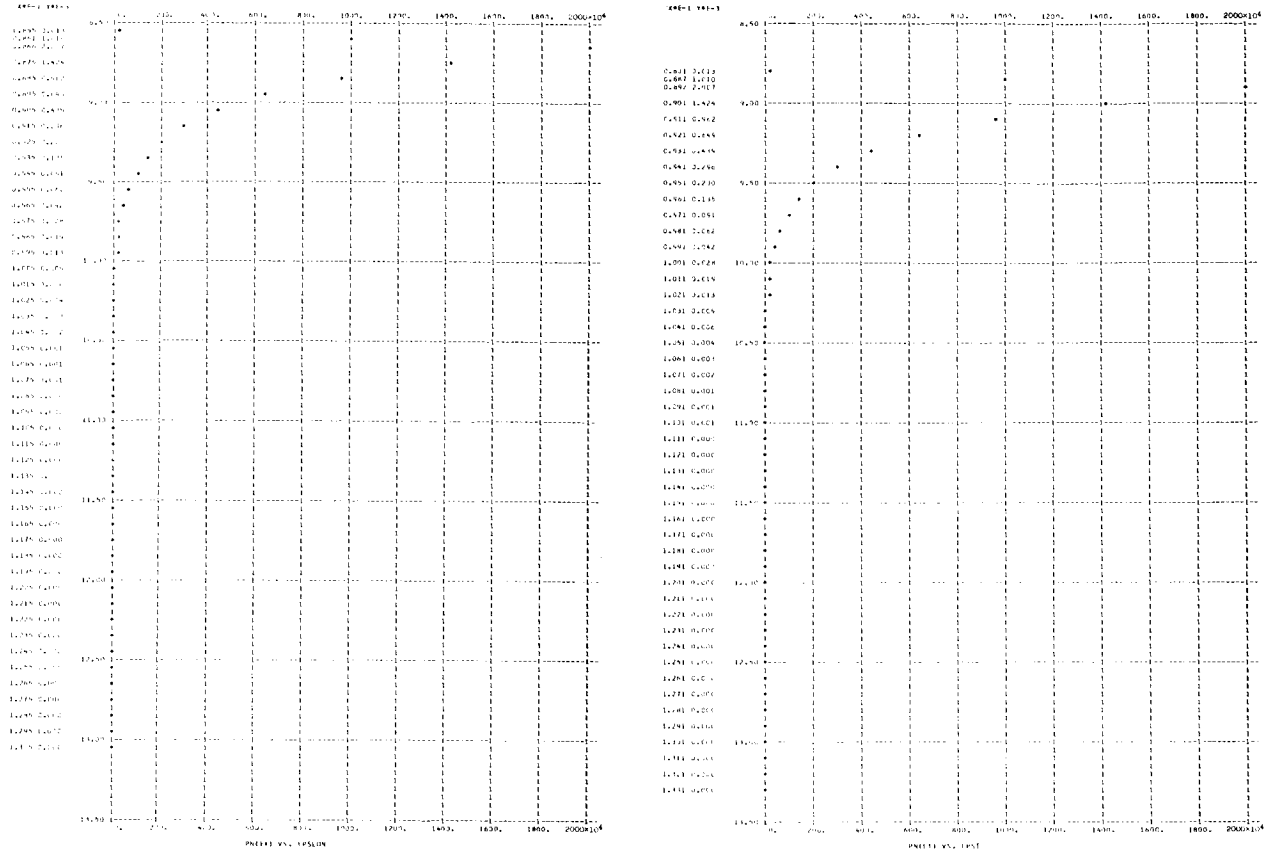
NEM = 0.26404823E 24 NEE = 0.91409034E 10 VXAV = 0.27096293E 09 KEXAV = 0.20874341E 02 KEXFL = 0.56565971E 10

J = 0.396791E-00 KETAV= 0.211329E 02 KETFL= 0.572664E 10 TZERO = 0.163492E 06 TD = 0.200599E 04

Figure 3. - Continued.


JTERJ/DELER VS. EPSLON


JIETJ/DELET VS. EPST

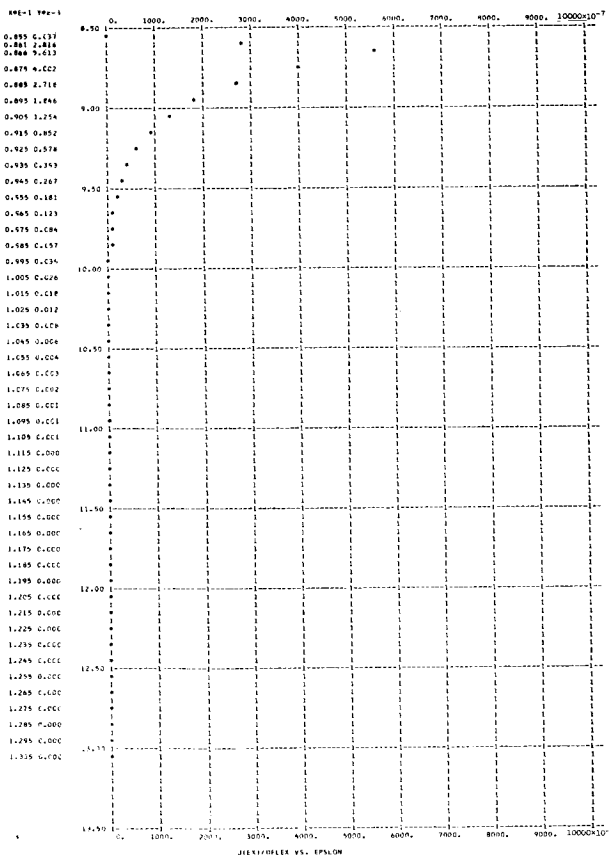


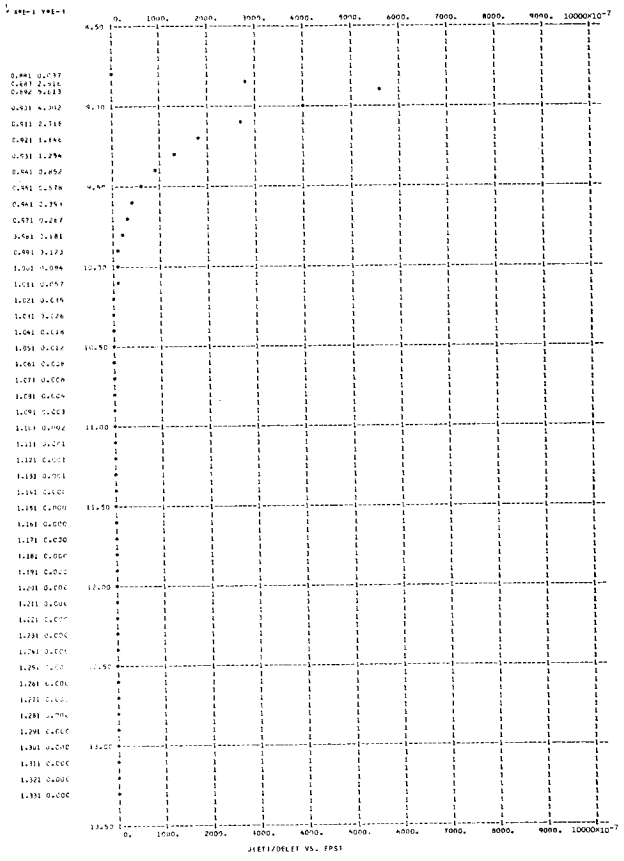
T = 0.30000000E 04 E = 0.10000002E 07 PHI = 8.00 AMU = 1.00 EVMAX = 8.6250

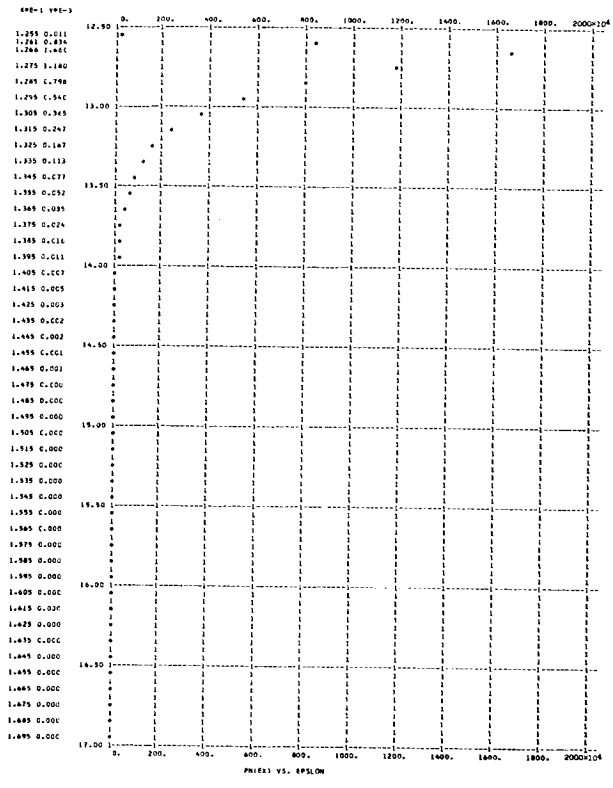
NEM = 0.49014194E 22 NEE = 0.61579762E 07 VXAV = 0.17662460E 09 KEXAV = 0.88708688E 01 KEXFL = 0.15674499E 10

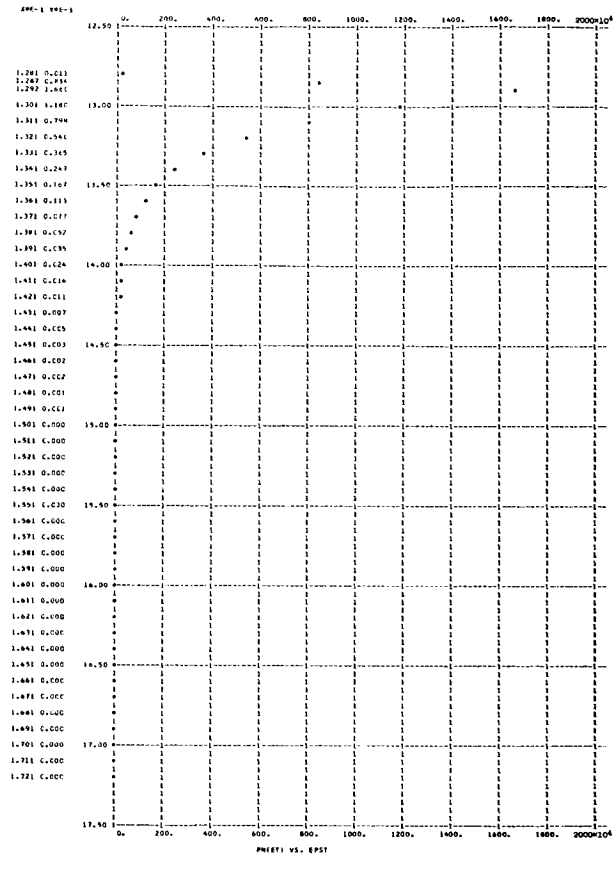
J = 0.174242E-03 KETAV= 0.912938E 01 KETFL= 0.161311E 10 TZERO = 0.706286E 05 TD = 0.201372E 04

Figure 3. - Continued.


0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000X10**-7
8.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
13.00
13.50
JIEXI/DELEX VS. EPSLON


0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000X10**-7
4.50
9.00
9.50
10.00
10.50
11.00
11.50
12.00
12.50
13.00
13.50
JIEFI/DELEF VS. EPSI



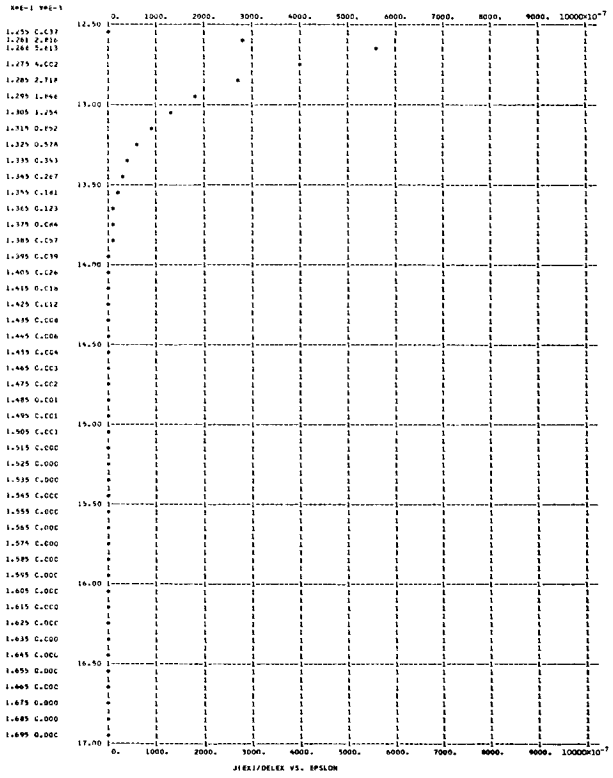


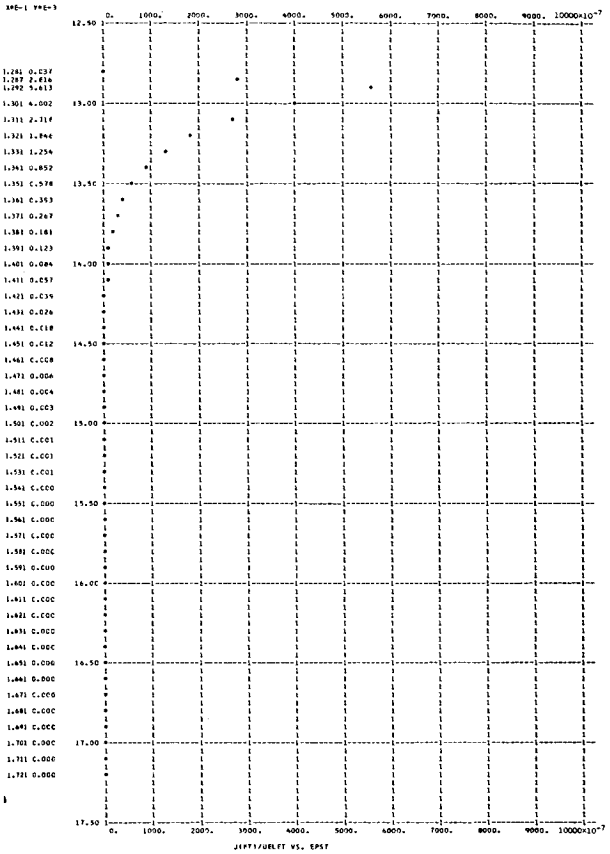
T = 0.30000000E 04 E = 0.10000002E 07 PHI = 8.00 AMU = 5.00 EVMAX = 12.6250

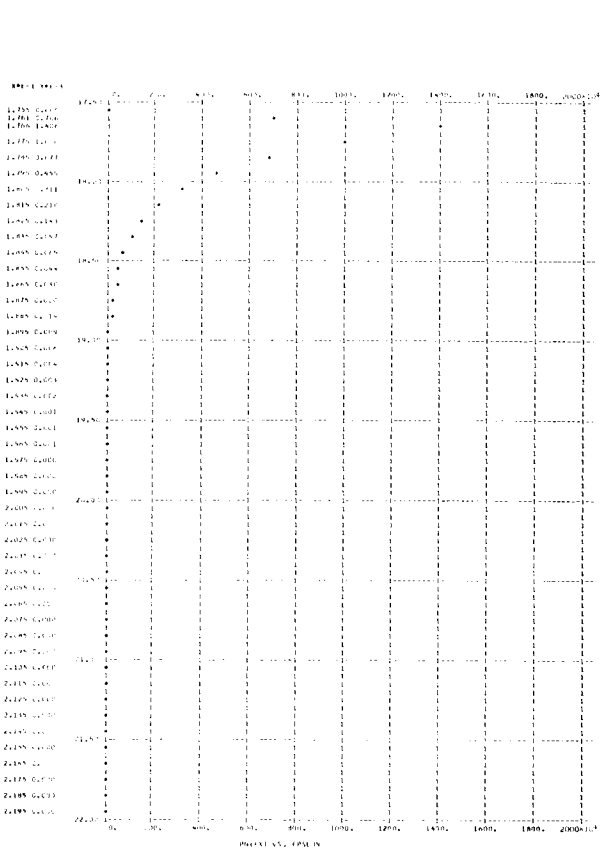
NEM = 0.50929833E 23 NEE = 0.51118210E 07 VXAV = 0.21277125E 09 KEXAV = 0.12871959E 02 KEXFL = 0.27393170E 10

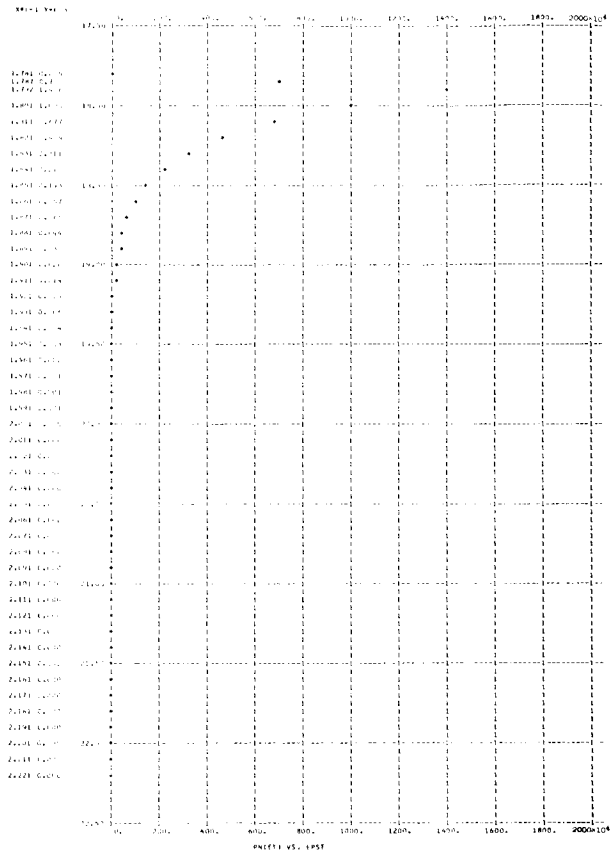
J = 0.174241E-03 KETAV= 0.131305E 02 KETFL= 0.279432E 10 TZERO = 0.101583E 06 TD = 0.200960E 04

Figure 3. - Continued.


XPE-1 YPE-1
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000x10⁻⁷
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
16.50
17.00
JIEXI/DELEX VS. EPSLON


XPE-1 YPE-1
0. 1000. 2000. 3000. 4000. 5000. 6000. 7000. 8000. 9000. 10000x10⁻⁷
12.50
13.00
13.50
14.00
14.50
15.00
15.50
16.00
16.50
17.00
17.50
JEFTI/DELEFT VS. EPST



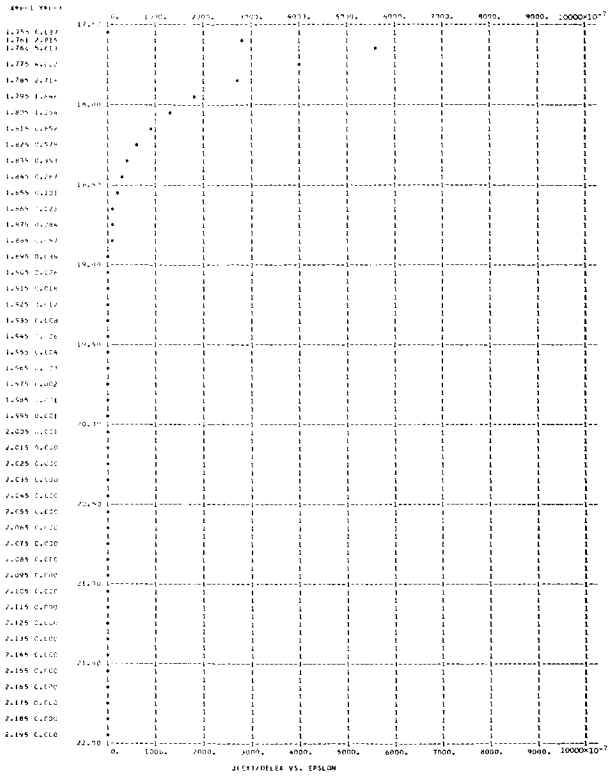


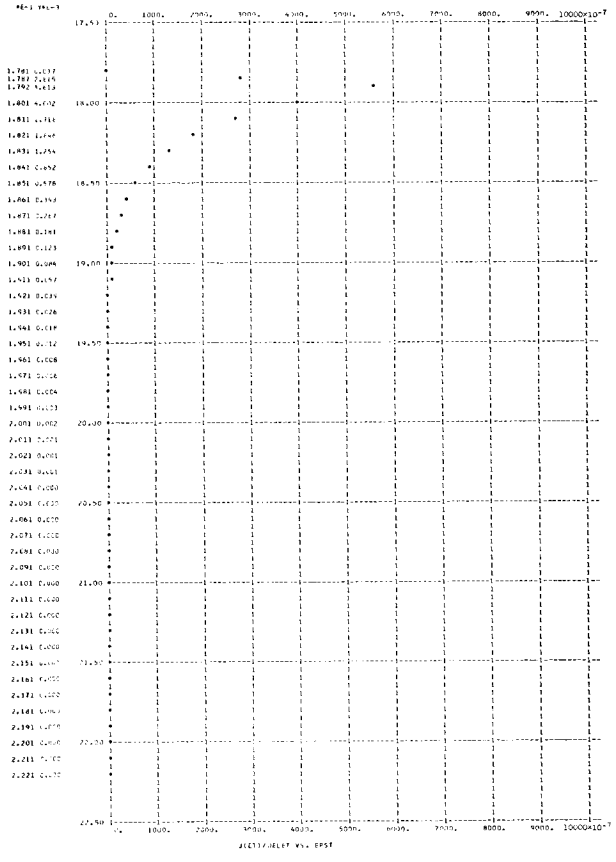
T = 0.30000000E 04 E = 0.10000002E 07 PHI = 8.00 AMU = 10.00 EVMAX = 17.6250

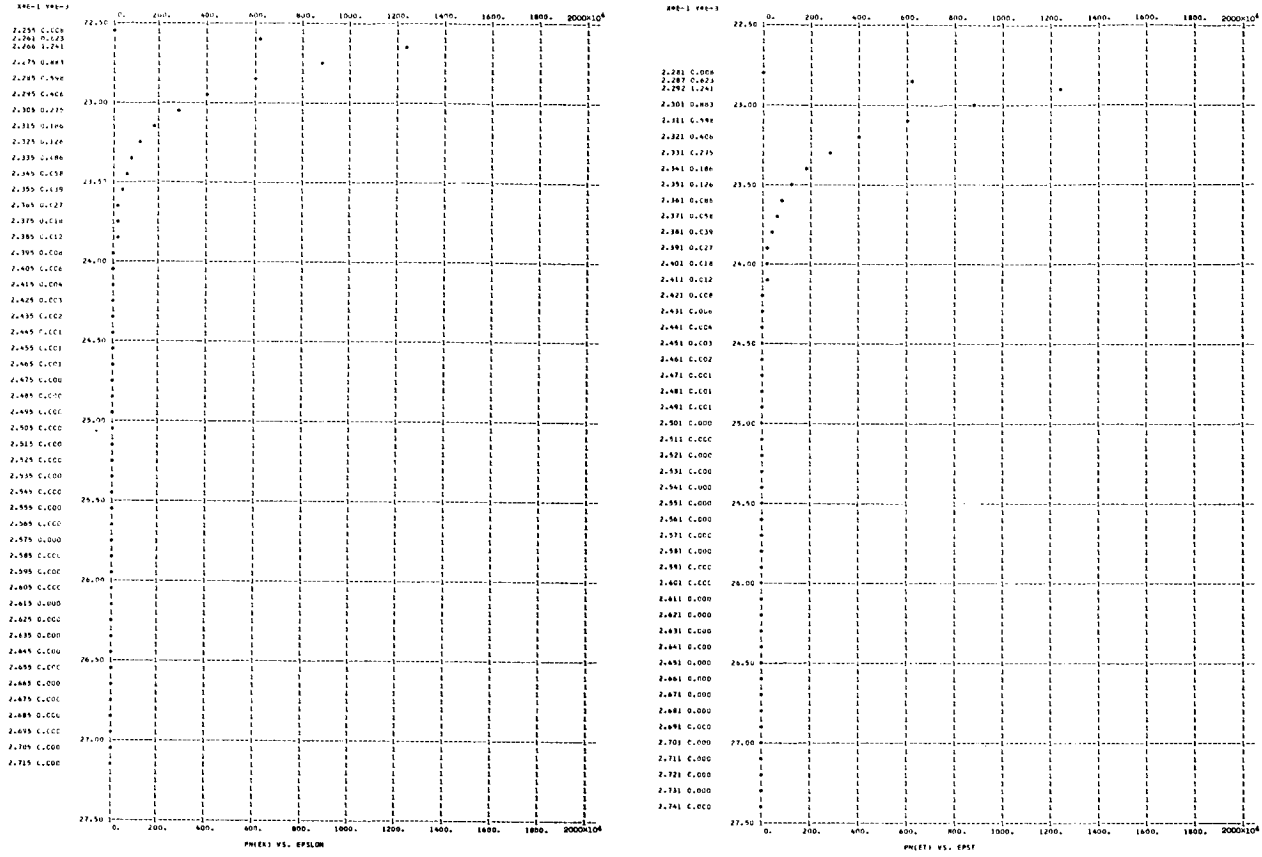
NEM = 0.14377540E 24 NEE = 0.43380386E 07 VXAV = 0.25072353E 09 KEXAV = 0.17872647E 02 KEXFL = 0.44815496E 10

J = 0.174241E-03 KETAV= 0.181312E 02 KETFL= 0.454636E 10 TZERO = 0.140270E 06 TD = 0.200693E 04

Figure 3. - Continued.





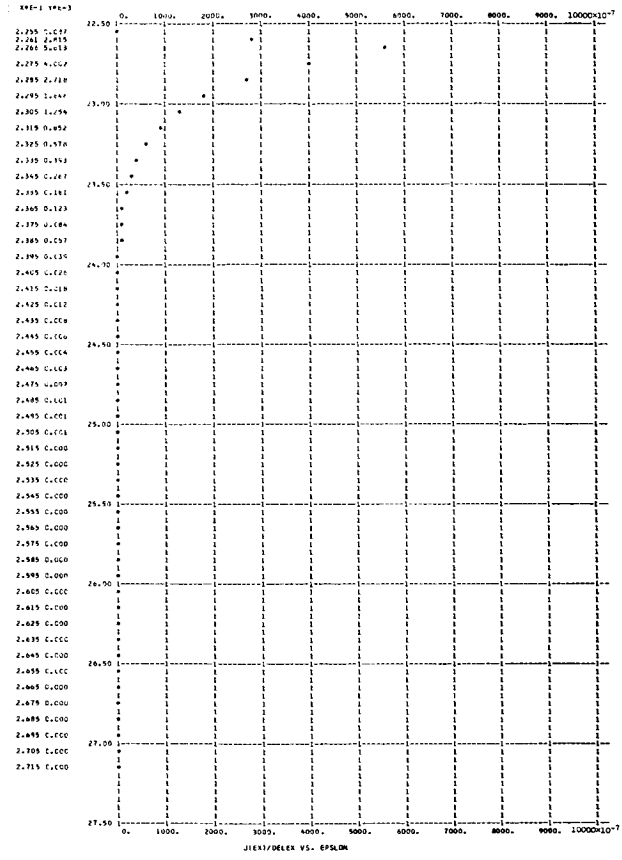


T = 0.30000000E 04 E = 0.10000002E 07 PHI = 8.00 AMU = 15.00 EVMAX = 22.6250

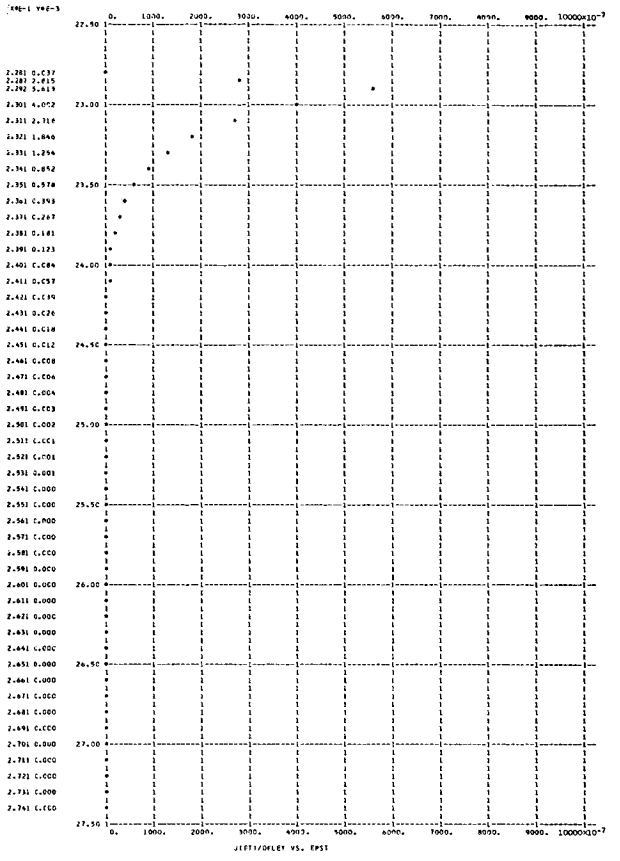
NEM = 0.26404823E 24 NEE = 0.38346200E 07 VXAV = 0.28363951E 09 KEXAV = 0.22873036E 02 KEXFL = 0.64881037E 10

J = 0.174241E-03 KETAV= 0.231316E 02 KETFL= 0.6561436 10 TZERO = 0.178955E 06 TD = 0.200551E 04

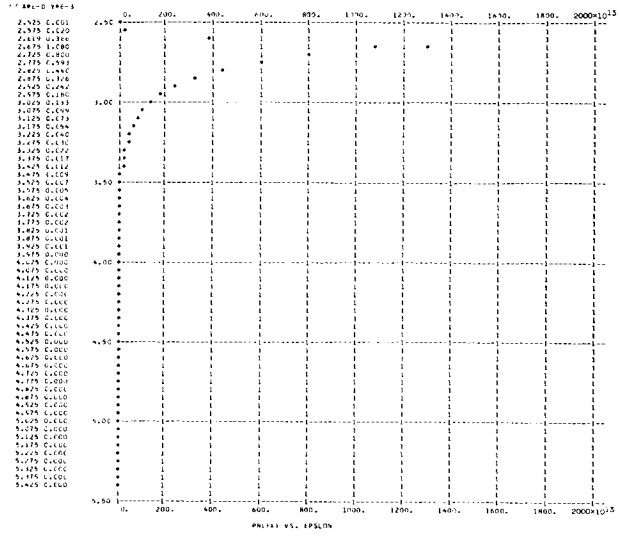
Figure 3. - Continued.

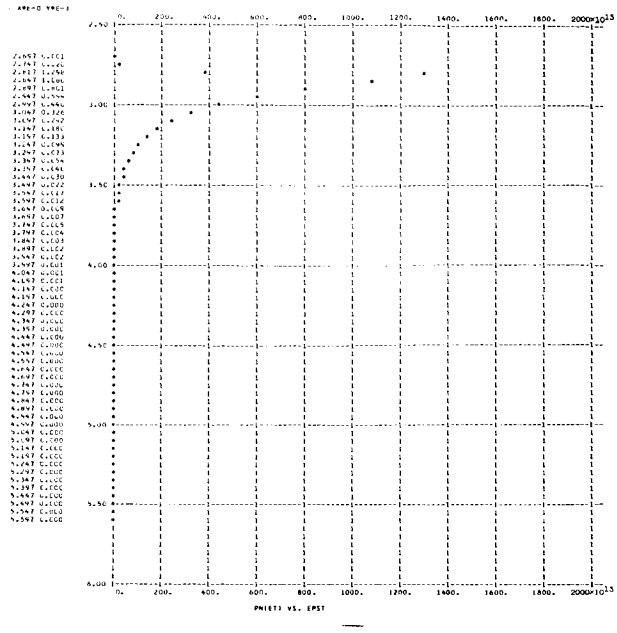


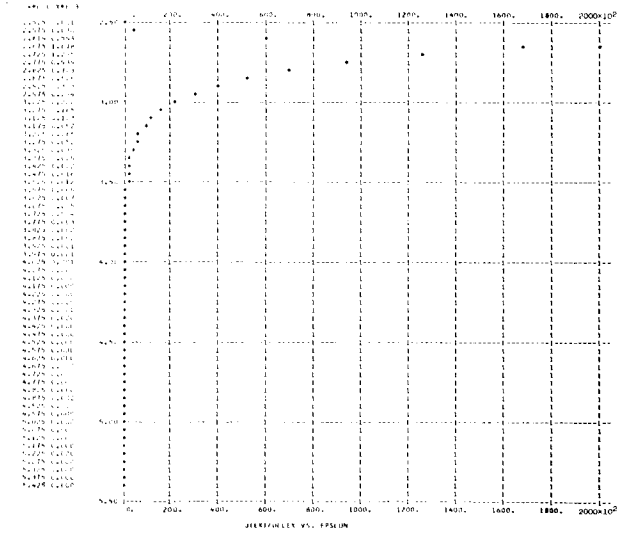
JIEXI/DELEX VS. EPSLON

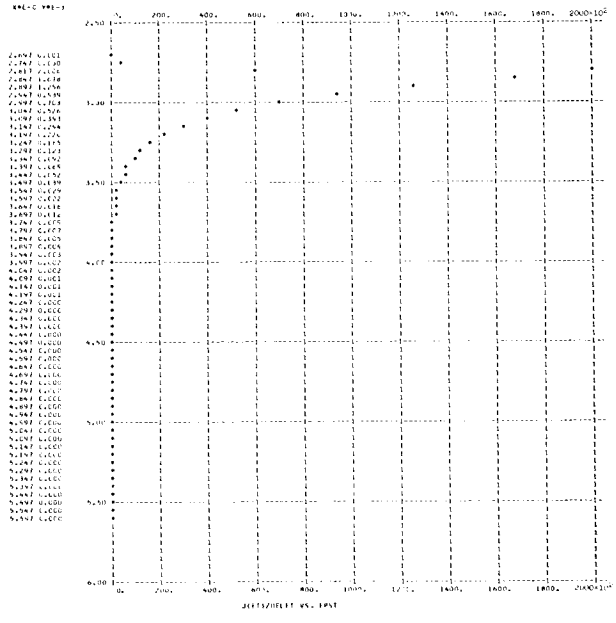


JIETI/DELEY VS. EPSI







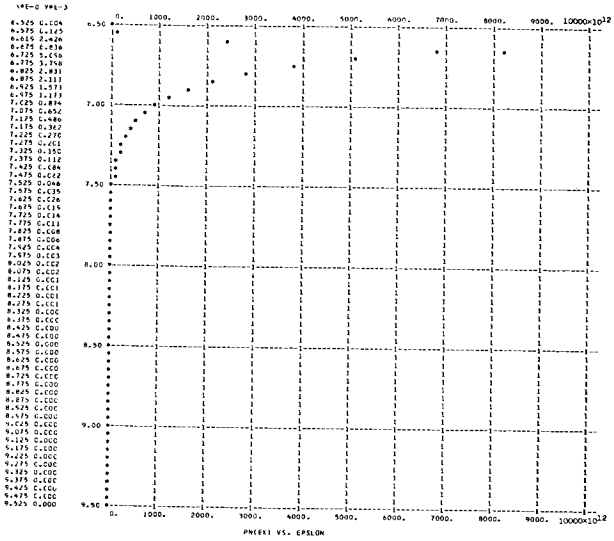


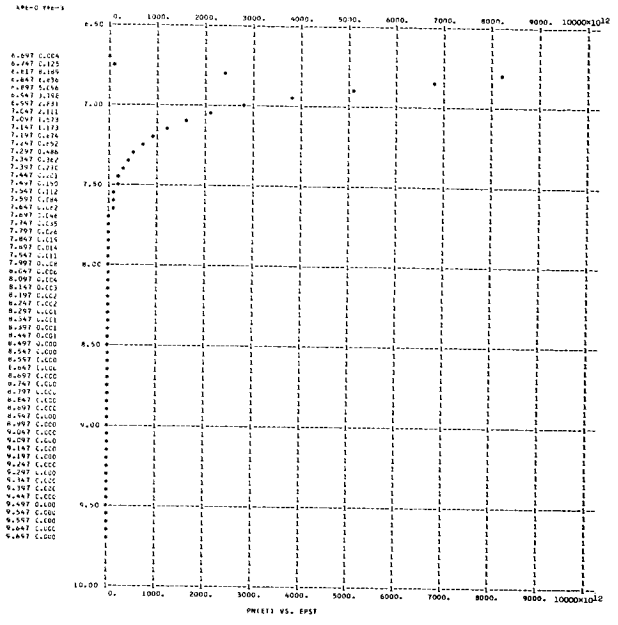
T = 0.2CCCCCCCE 04 E = 0.10000002E 07 PHI = 2.00 AMU = 1.00 EVMAX = 2.6385

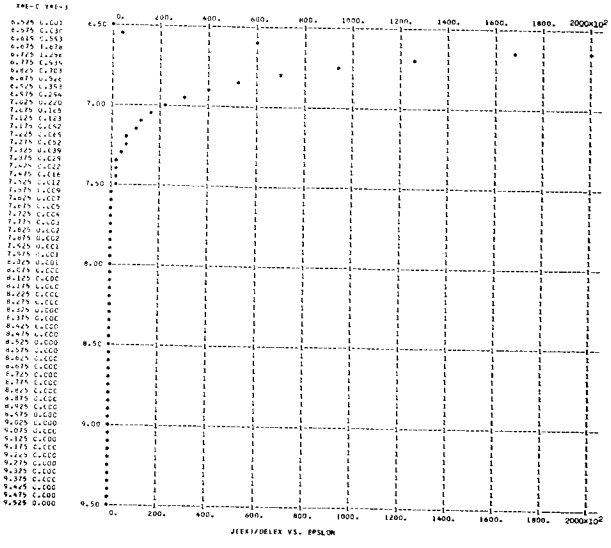
NEM = 0.46731979E 22 NEE = 0.23972816E 16 VXAV = 0.99100461E 08 KEXAV = 0.27944887E 01 KEXFL = 0.27742504E 09

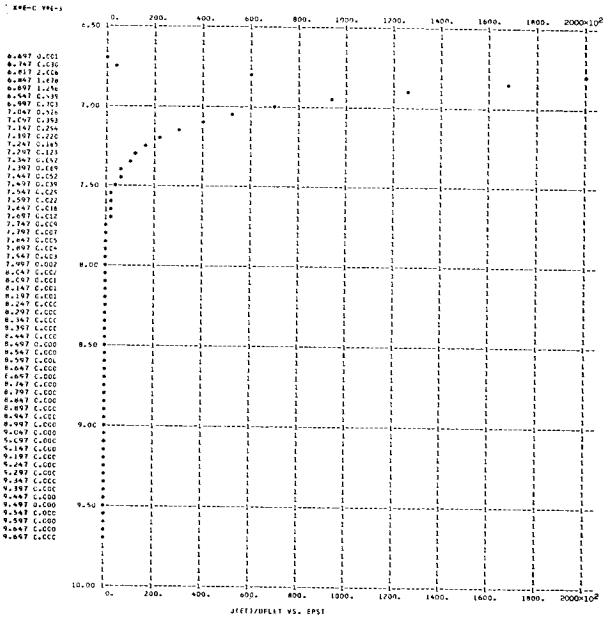
J = 0.380590E 05 KETAV= 0.296683E 01 KETFL= 0.294505E 09 TZERO = 0.229526E 05 TD = 0.135196E 04

Figure 3. -Continued.







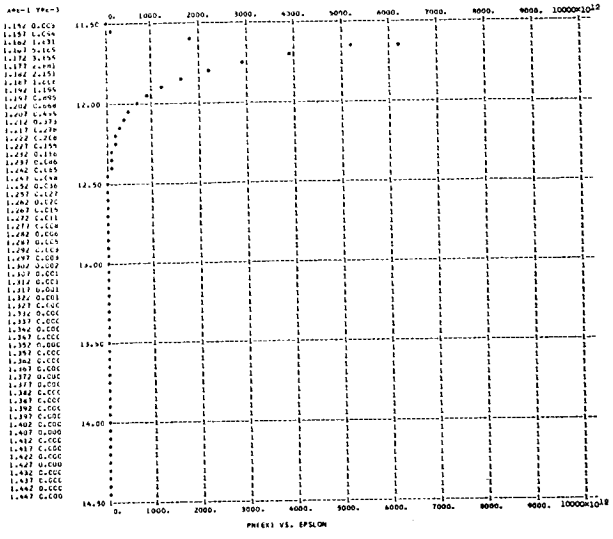


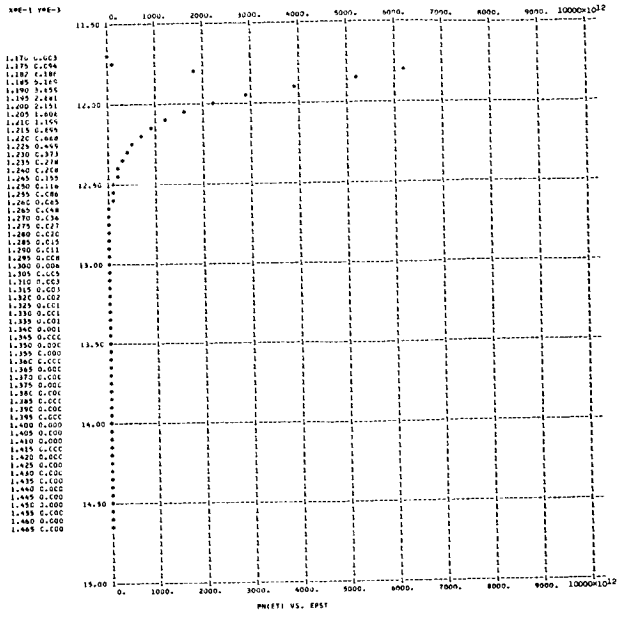
T = 0.20000000E 04 E = 0.10000002E 07 PHI = 2.00 AMU = 5.00 EVMAX = 6.6385

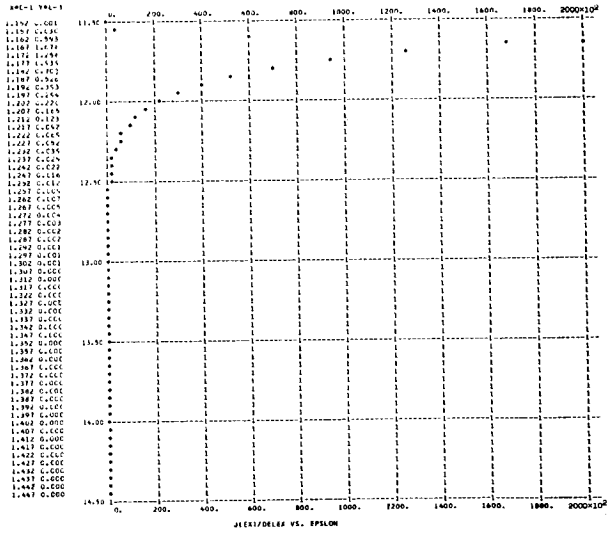
NEM = 0.50836428E 23 NEE = C.15365420E 16 VXAV = 0.15461317E 09 KEXAV = 0.67973076E 01 KEXFL = 0.10512820E 10

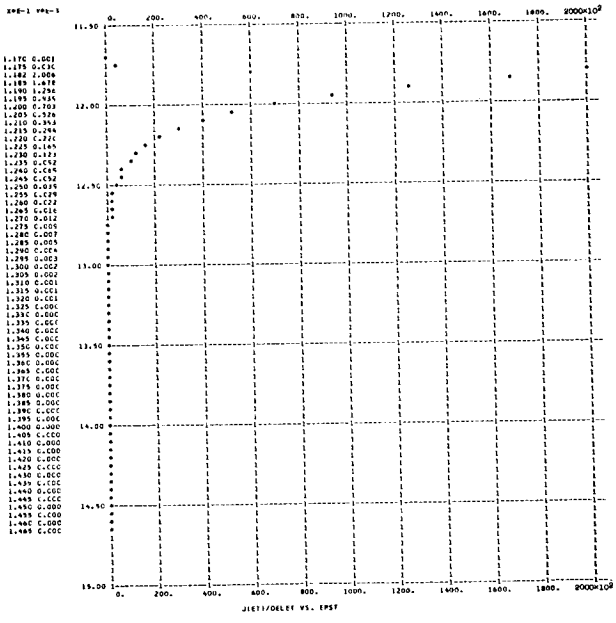
J = 0.380587E 05 KETAV= 0.696965E 01 KETFL= 0.107793E 10 TZERO = 0.539200E 05 TD = 0.134146E 04

Figure 3. - Continued.







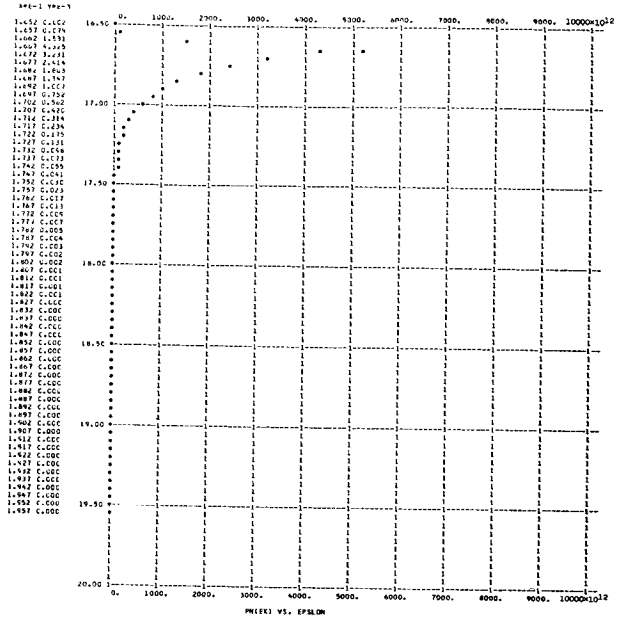


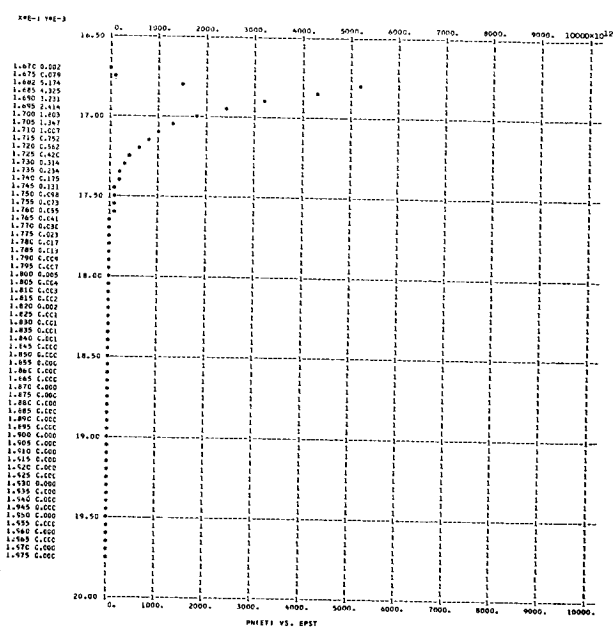
T = 0.20000000E 04 E = 0.10000002E 07 PHI = 2.00 AMU = 10.00 EVMAX = 11.6385

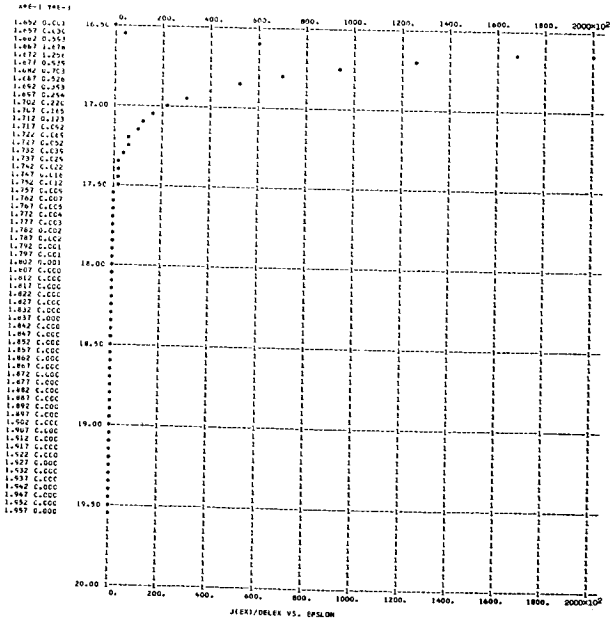
NEM = 0.14370952E 24 NEE = 0.11662227E 16 VXAV = 0.20370796E 09 KEXAV = 0.11798191E 02 KEXFL = 0.24036383E 10

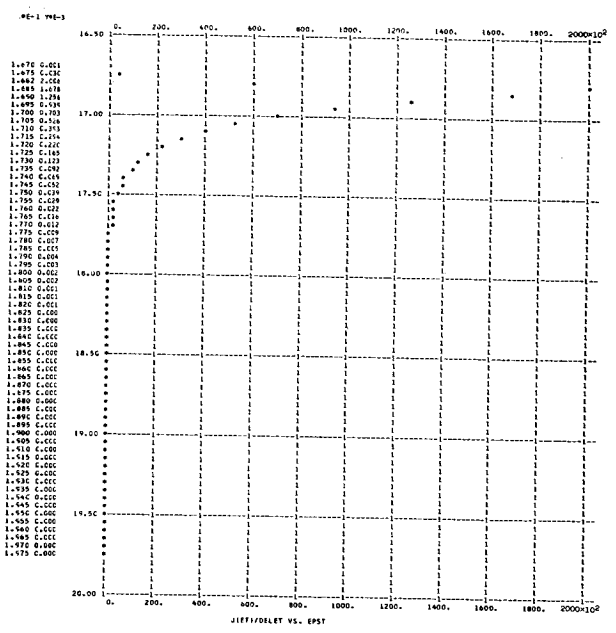
J = 0.380585E 05 KETAV= 0.119705E 02 KETFL= 0.243875E 10 TZERO = 0.926089E 05 TD = 0.133807E 04

Figure 3. - Continued.







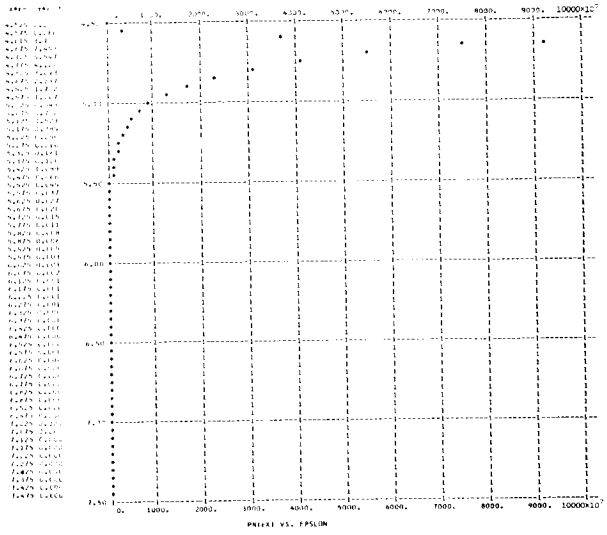


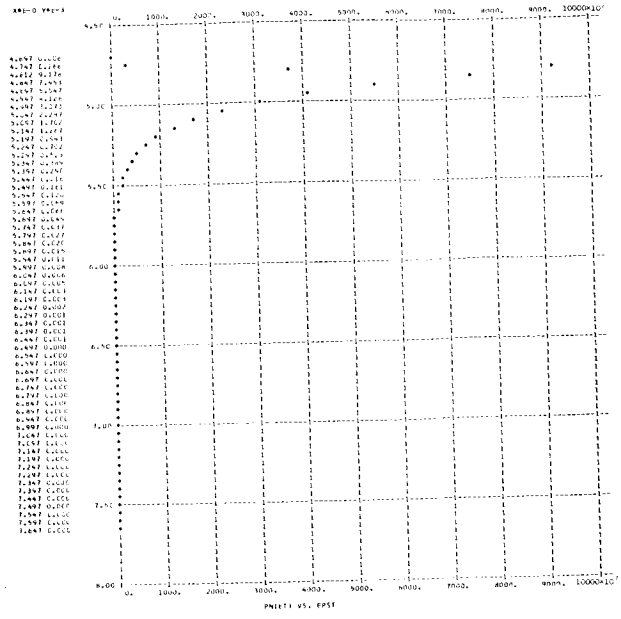
T = 0.200000C0E 04 E = 0.10000002E 07 PHI = 2.00 AMU = 15.00 EVMAX = 16.6385

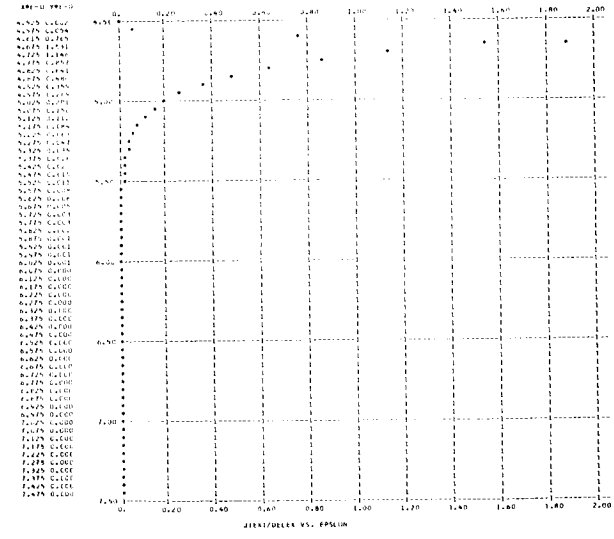
NEM = 0.26399449E 24 NEE = 0.97734091E 15 VXAV = 0.24307590E 09 KEXAV = 0.16798552E 02 KEXFL = 0.40835375E 10

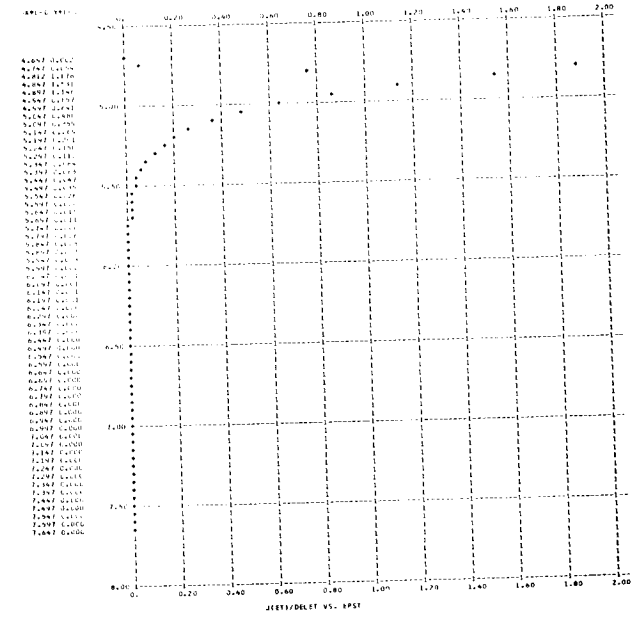
J = 0.380584E 05 KETAV= 0.169709E 02 KETFL= 0.412543E 10 TZERO = 0.131294E 06 TD = 0.133669E 04

Figure 3. - Continued.







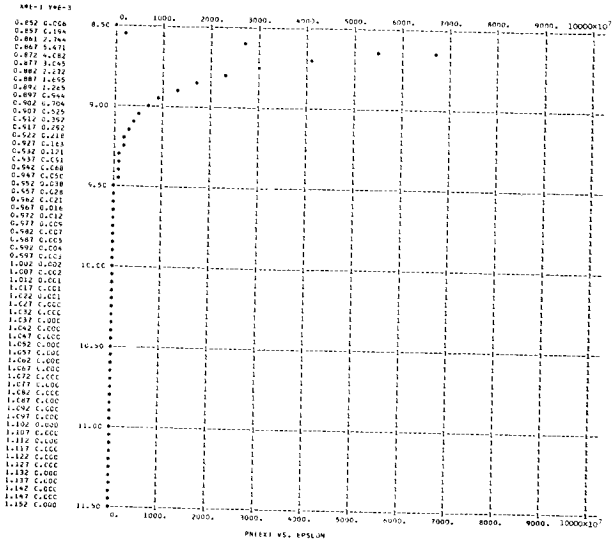


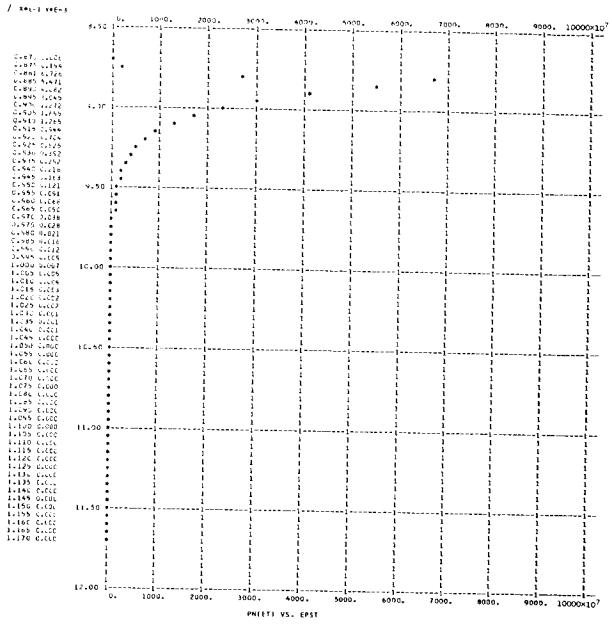
T = 0.2C0000C0E 04 E = 0.10000002E 07 PHI = 4.00 AMU = 1.00 EVMAX = 4.6295

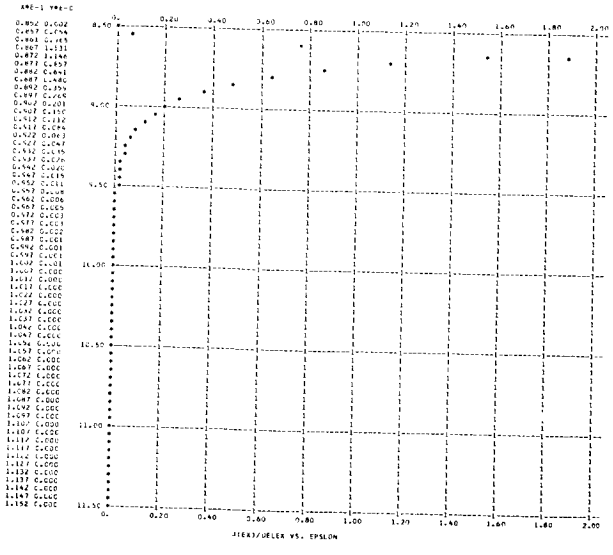
NEM = 0.46731979E 22 NEE = 0.17697770E 11 VXAV = 0.12973622E 09 KEXAV = 0.47866526E 01 KEXFL = 0.62138790E 09

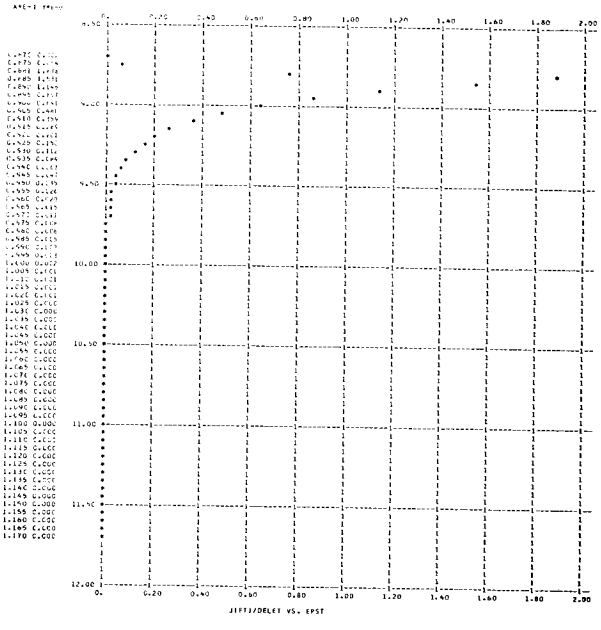
J = 0.367826E-C0 KETAV= 0.495900E 01 KETFL= 0.643747E 09 TZERO = 0.383648E 05 TD = 0.134462E 04

Figure 3. - Continued.







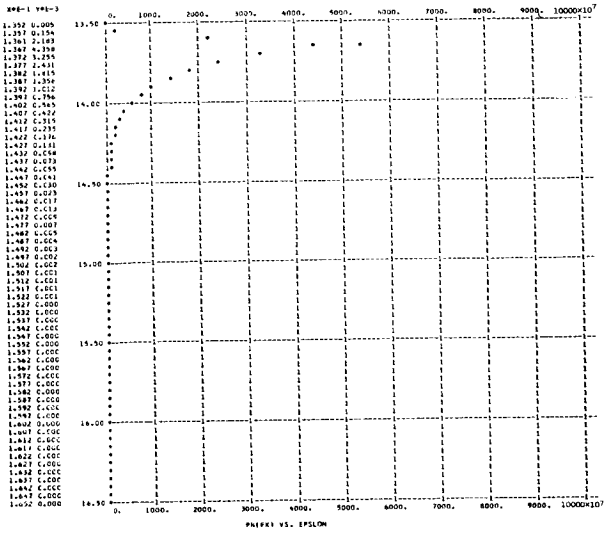


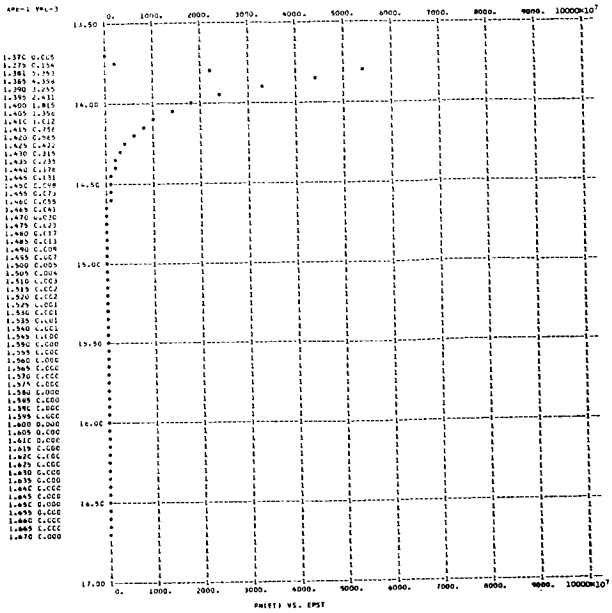
T = 0.2C0000C0E 04 E = C.10000002E 07 PHI = 4.00 AMU = 5.00 EVMAX = 8.6295

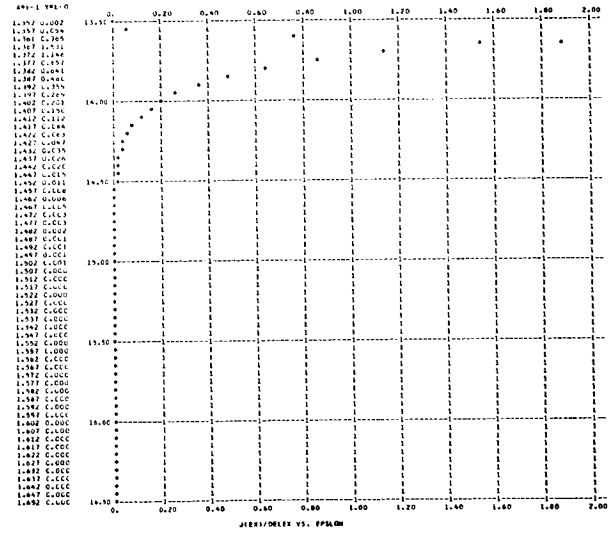
NEM = 0.50836430E 23 NEE = 0.13059994E 11 VXAV = 0.17580678E 09 KEXAV = 0.87879697E 01 KEXFL = 0.15452758E 10

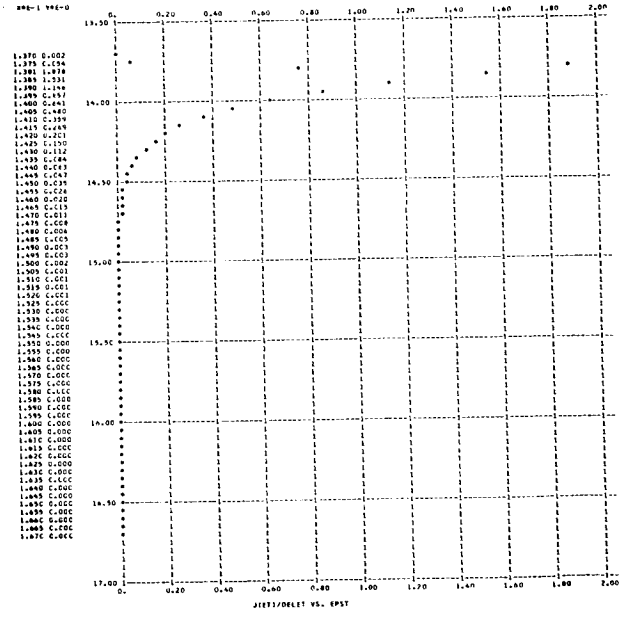
J = 0.367825E-00 KETAV= 0.896031E 01 KETFL= 0.157557E 10 TZERO = 0.693206E 05 TD = 0.133966E 04

Figure 3. - Continued.







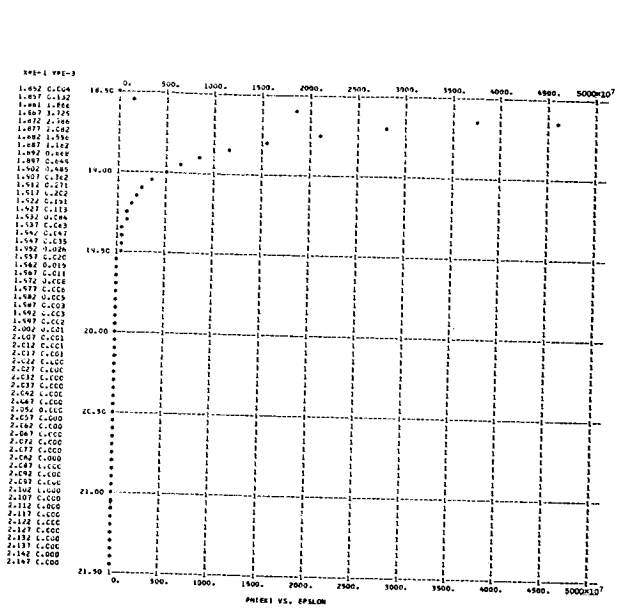


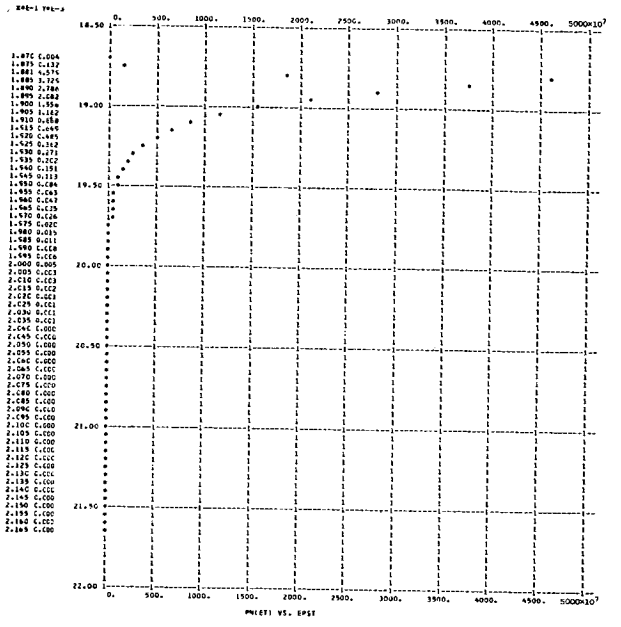
T = 0.2CCC0000E 04 E = 0.10000002E 07 PHI = 4.00 AMU = 10.00 EVMAX = 13.6295

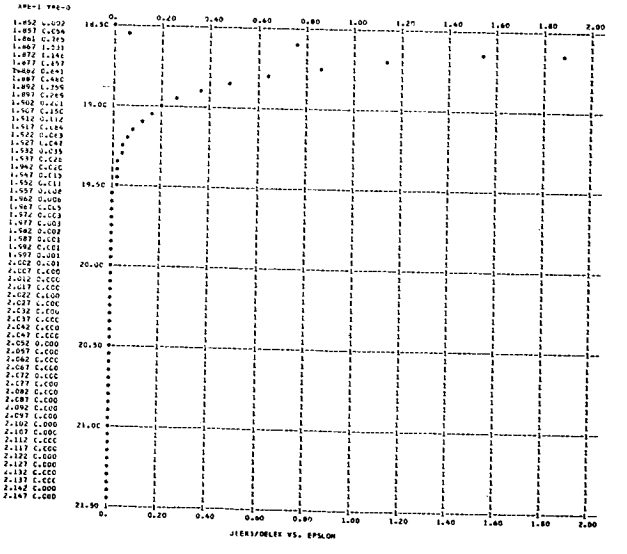
NEM = 0.14370953E 24 NEE = 0.10425930E 11 VXAV = 0.22022305E 09 KEXAV = 0.13788562E 02 KEXFL = 0.30367932E 10

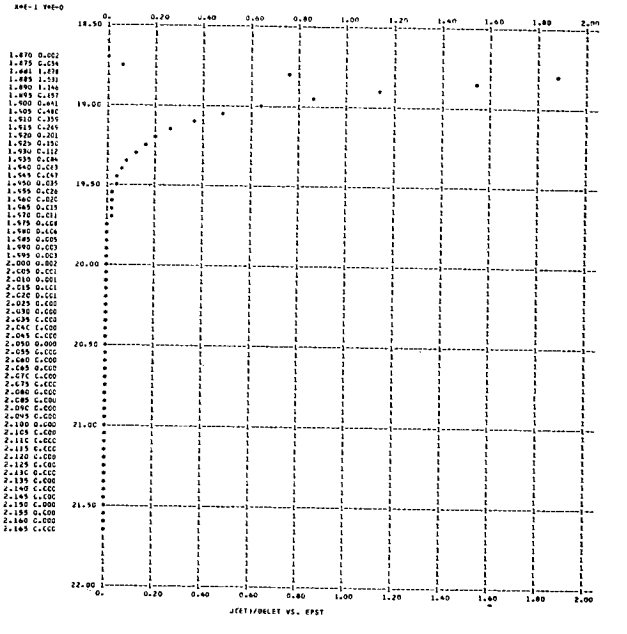
J = 0.367824E-00 KETAV= 0.139609E 02 KETFL= 0.307475E 10 TZERO = 0.108007E 06 TD = 0.133738E 04

Figure 3. - Continued.







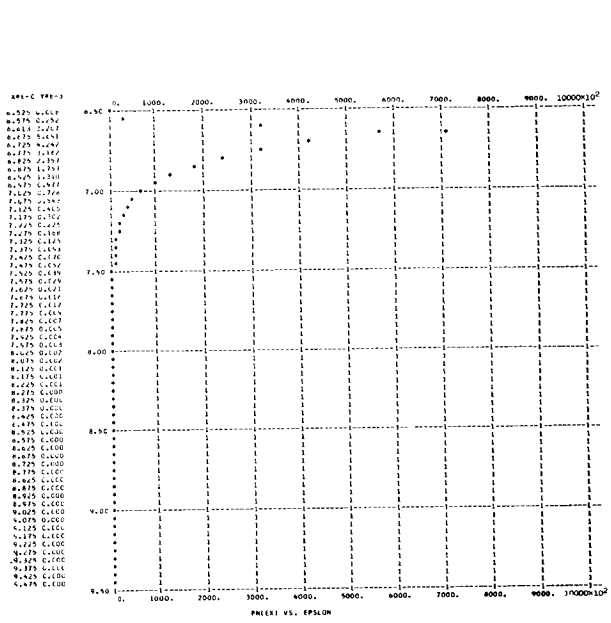


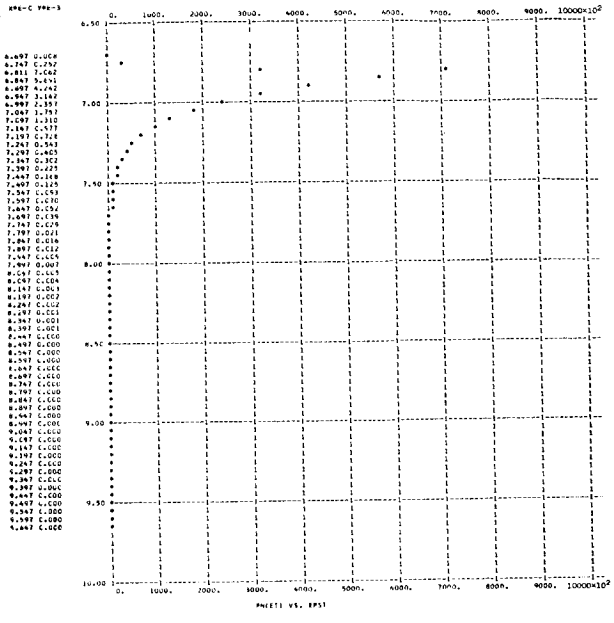
T = 0.20000000E 04 E = 0.10000002E 07 PHI = 4.00 AMU = 15.00 EVMAX = 18.6295

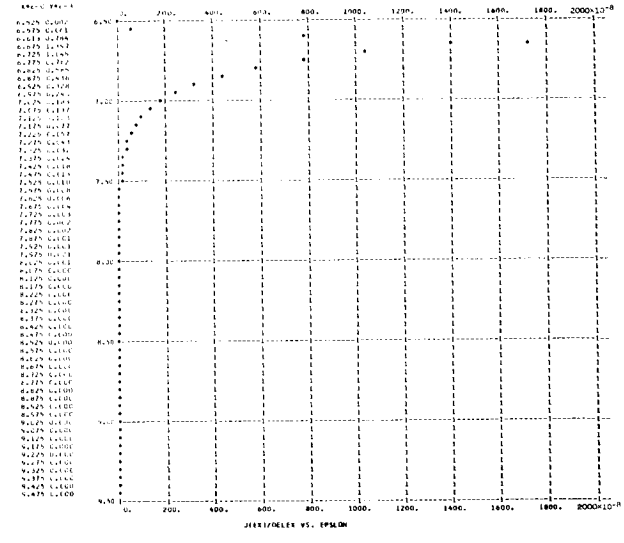
NEM = 0.26399449E 24 NEE = 0.89313955E 10 VXAV = 0.25707340E 09 KEXAV = 0.18788840E 02 KEXFL = 0.48303124E 10

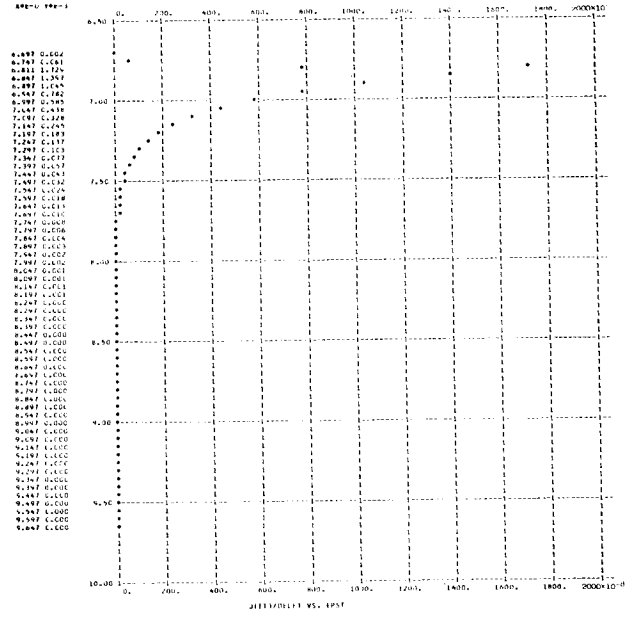
J = 0.367823E-00 KETAV= 0.189612E 02 KETFL= 0.487462E 10 TZERO = 0.146691E 06 TD = 0.133626E 04

Figure 3. - Continued.







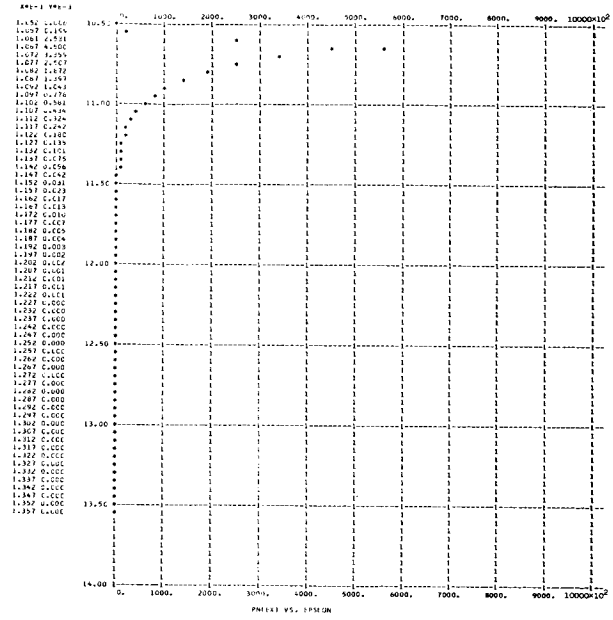


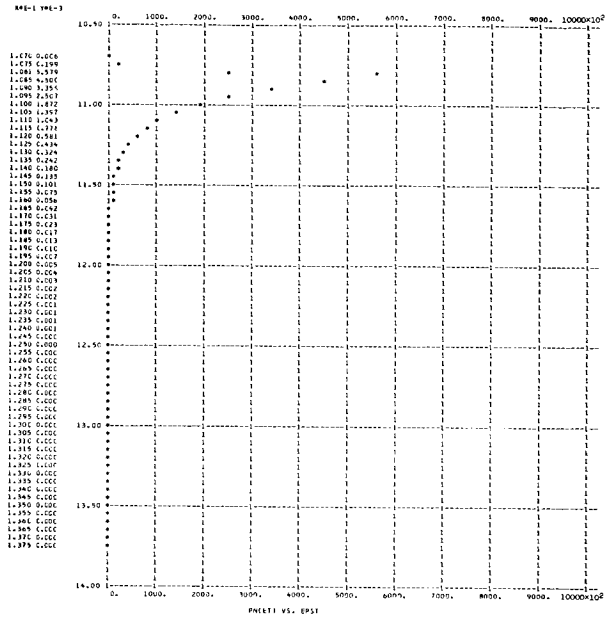
T = 0.20000000E 04 E = 0.10000002E 07 PHI = 6.00 AMU = 1.00 EVMAX = 6.6265

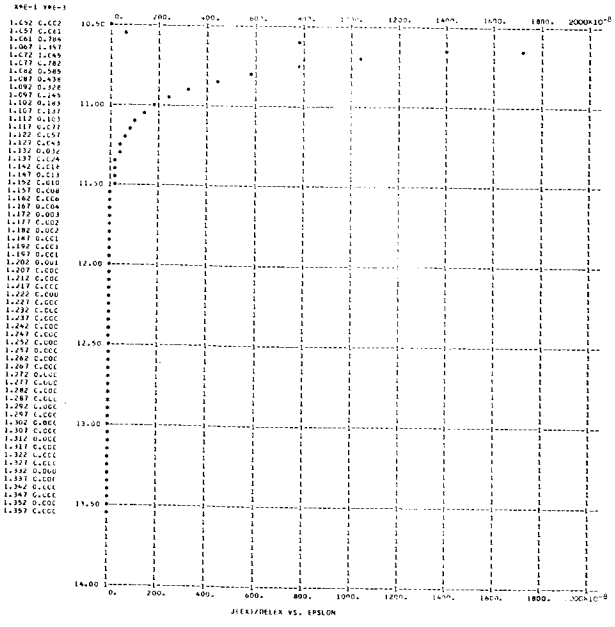
NEM = 0.46731979E 22 NEE = 0.13816540E 06 VXAV = 0.15446557E 09 KEXAV = 0.67843385E 01 KEXFL = 0.10482752E 10

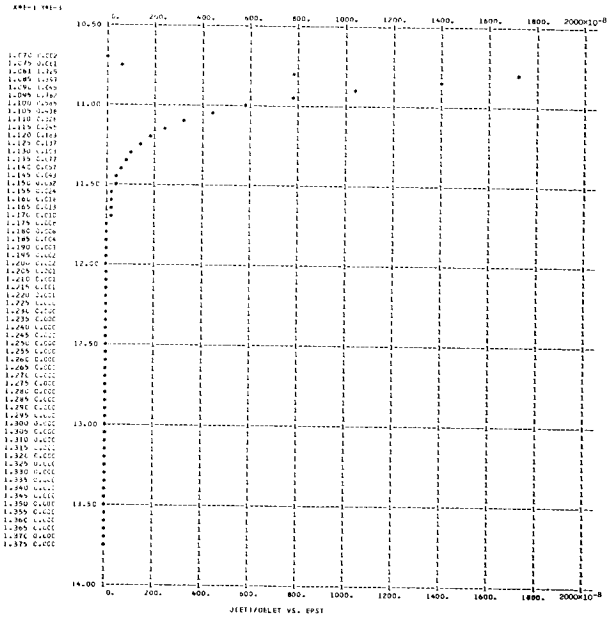
J = 0.341896E-05 KETAV= 0.695668E 01 KETFL= 0.107490E 10 TZERO = 0.538197E 05 TD = 0.134144E 04

Figure 3. - Continued.







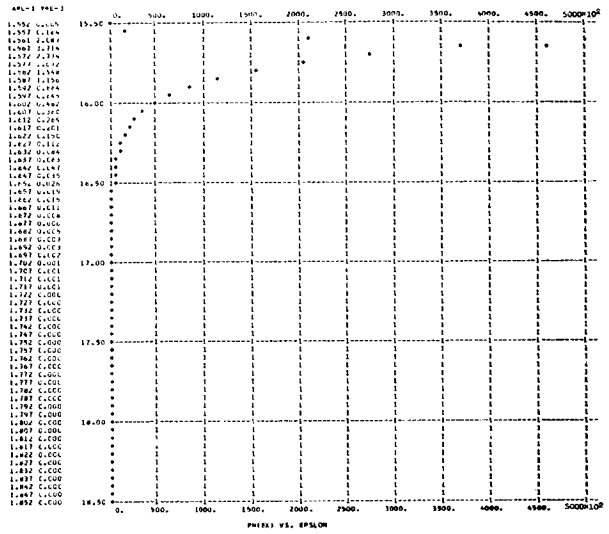


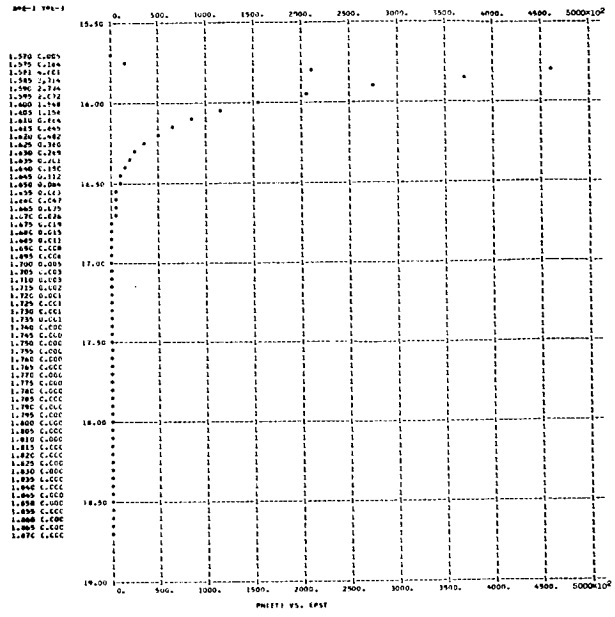
T = 0.200000C0E 04 E = 0.10000002E 07 PHI = 6.00 AMU = 5.00 EVMAX = 10.6265

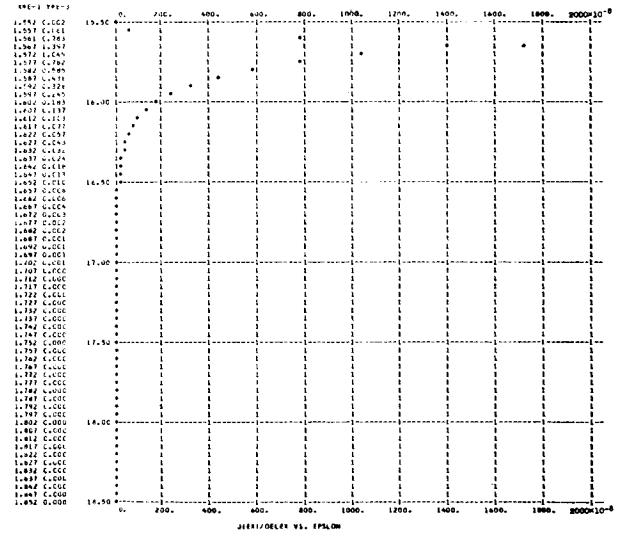
NEM = 0.50836430E 23 NEE = 0.10957721E 06 VXAV = 0.19476473E 09 KEXAV = 0.10785108E 02 KEXFL = 0.21008229E 10

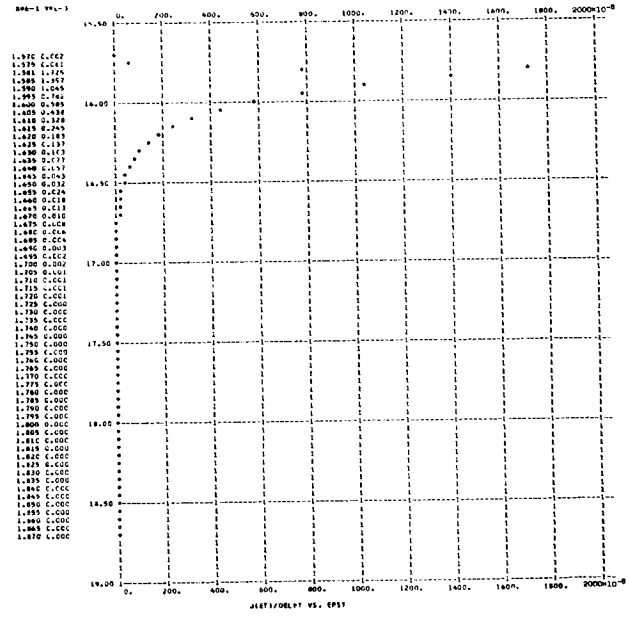
J = 0.341895E-05 KETAV= 0.109575E 02 KETFL= 0.213439E 10 TZERO = 0.847712E 05 TD = 0.133851E 04

Figure 3. - Continued.







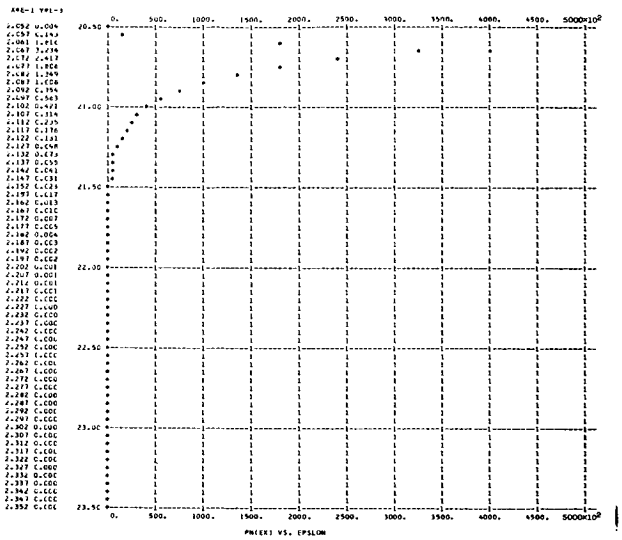


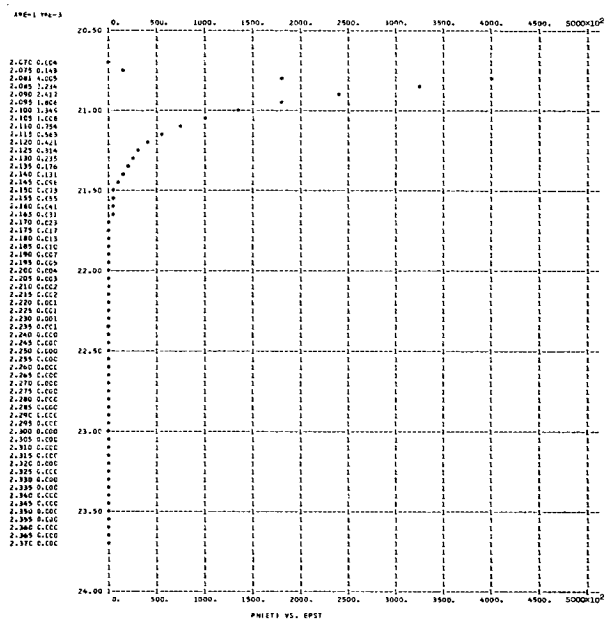
T = 0.20000000E 04 E = 0.10000002E 07 PHI = 6.00 AMU = 10.00 EVMAX = 15.6265

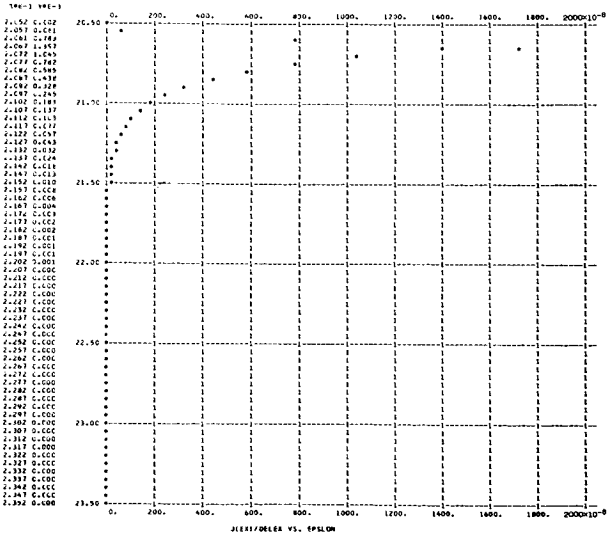
NEM = 0.14370953E 24 NEE = 0.90572241E 05 VXAV = 0.23563232E 09 KEXAV = 0.15785533E 02 KEXFL = 0.37198012E 10

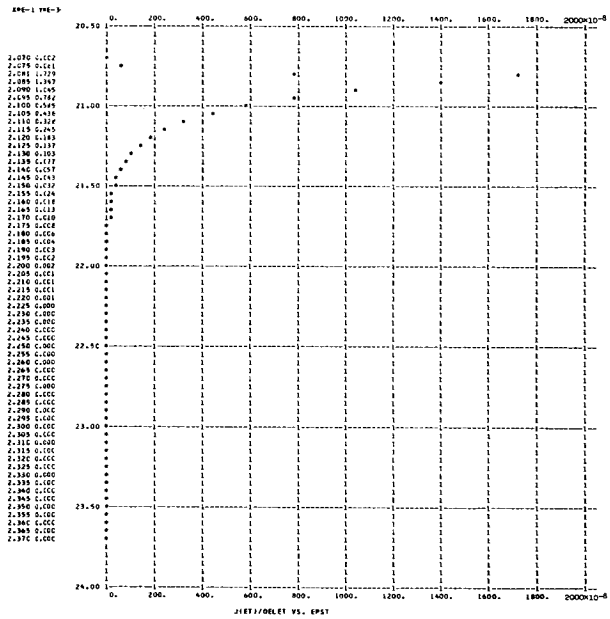
J = 0.341895E-05 KETAV= 0.159579E 02 KETFL= 0.376041E 10 TZERO = 0.123457E 06 TD = 0.133688E 04

Figure 3. - Continued.







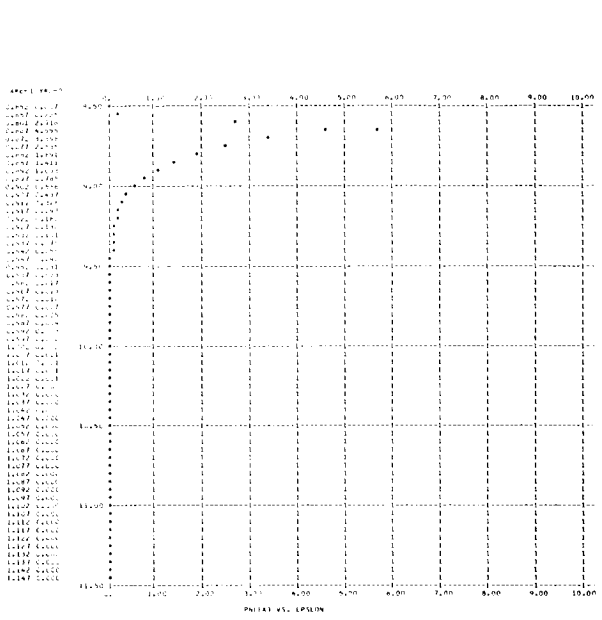


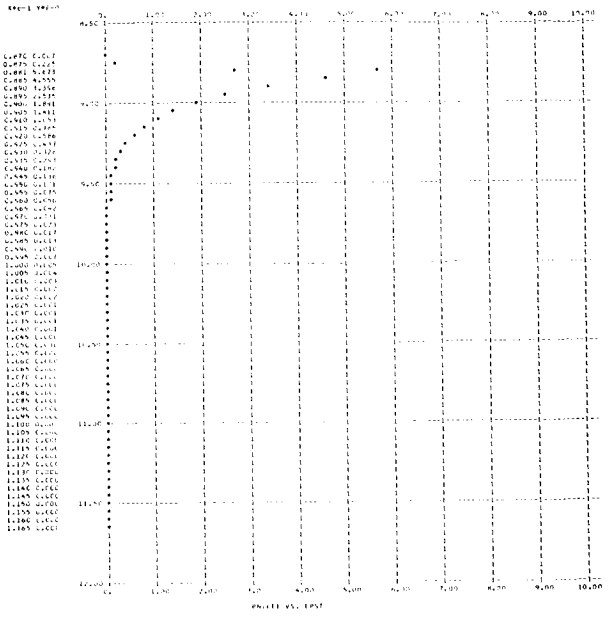
T = 0.20000000E 04 E = 0.10000002E 07 PHI = 6.00 AMU = 15.00 EVMAX = 20.6265

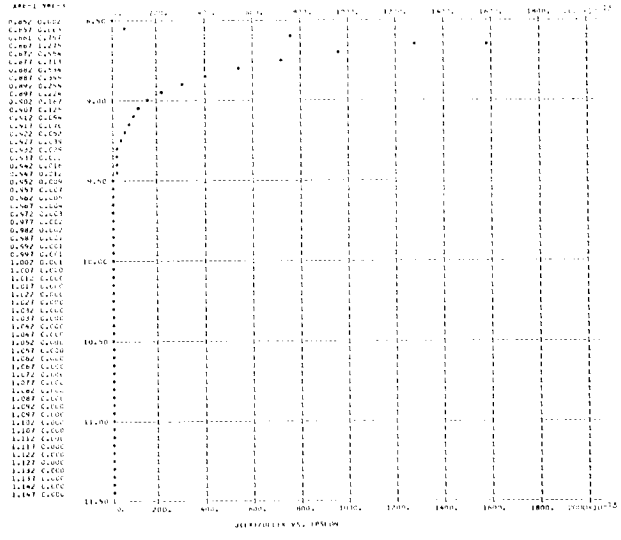
NEM = 0.26399449E 24 NEE = 0.78929318E 05 VXAV = 0.27039010E 09 KEXAV = 0.20785753E 02 KEXFL = 0.56204541E 10

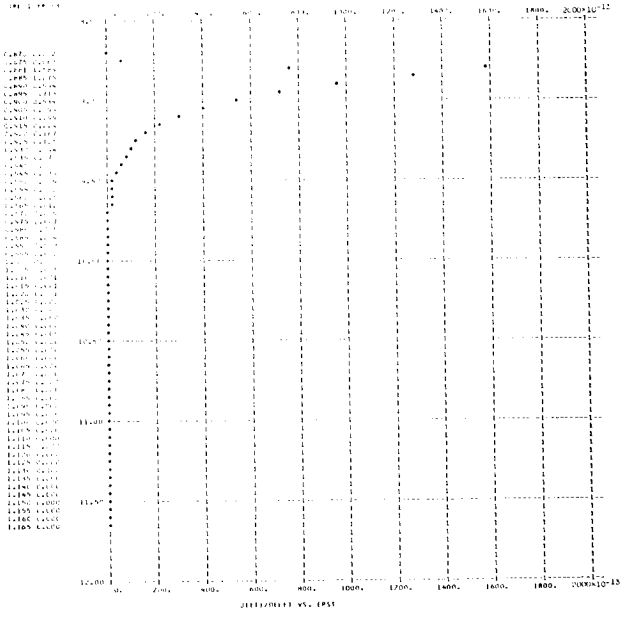
J = 0.341894E-05 KETAV= 0.209581E 02 KETFL= 0.566705E 10 TZERO = 0.162140E 06 TD = 0.133602E 04

Figure 3. - Continued.







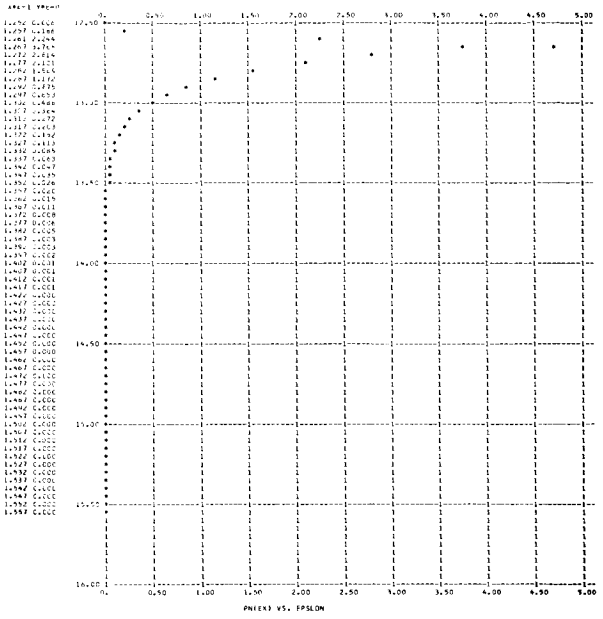


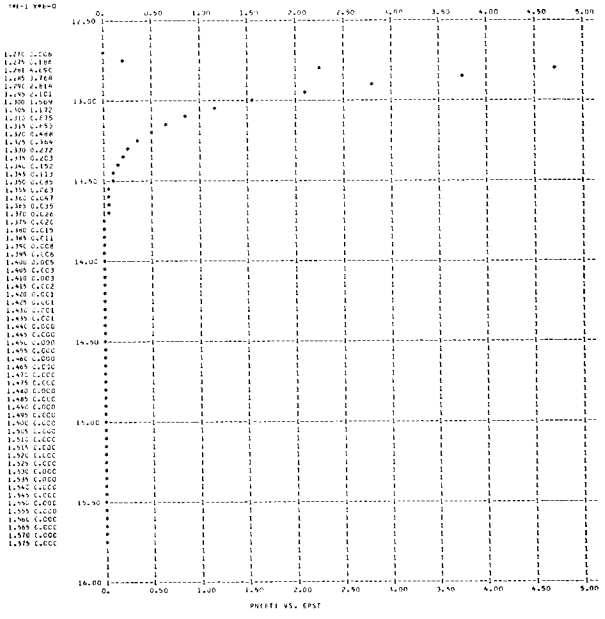
T = 0.20000000E 04 E = 0.10000002E 07 PHI = 8.00 AMU = 1.00 EVMAX = 8.6250

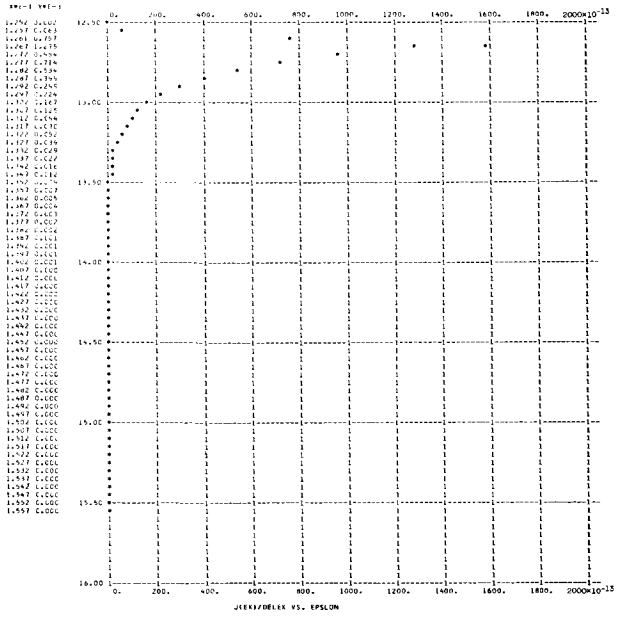
NEM = 0.46731979E 22 NEE = 0.11180638E 01 VXAV = 0.17575959E 09 KEXAV = 0.87832523E 01 KEXFL = 0.15440317E 10

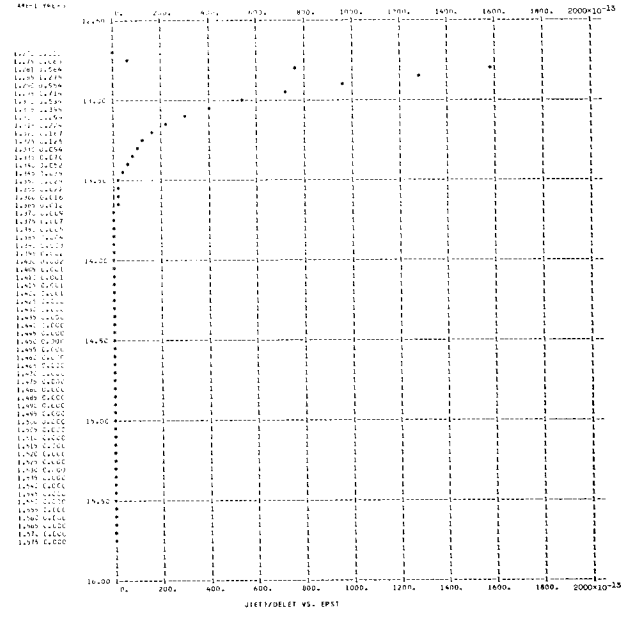
J = 0.314810E-10 KETAV= 0.895559E 01 KETFL= 0.157432E 10 TZERO = 0.692841E 05 TD = 0.133964E 04

Figure 3. - Continued.







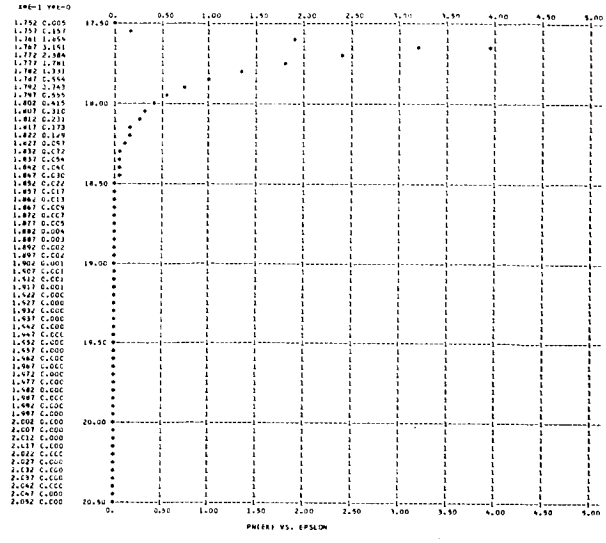


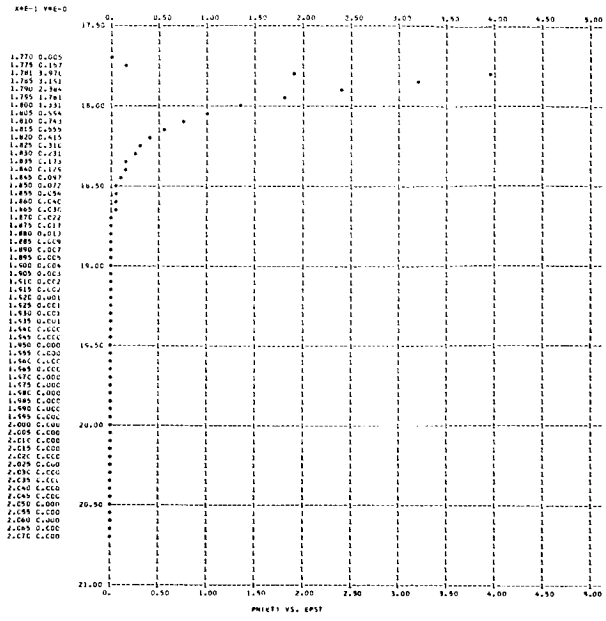
T = 0.20000000E 04 E = 0.10000002E 07 PHI = 8.00 AMU = 5.00 EVMAX = 12.6250

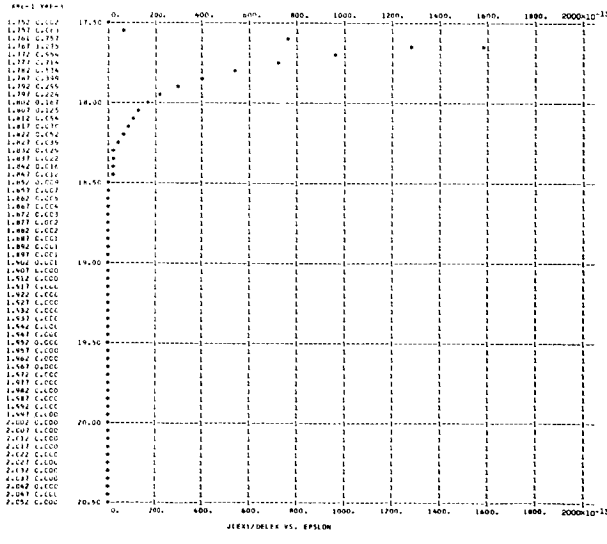
NEM = 0.50836430E 23 NEE = 0.92673095E 00 VXAV = 0.21204655E 09 KEXAV = 0.12783760E 02 KEXFL = 0.27109954E 10

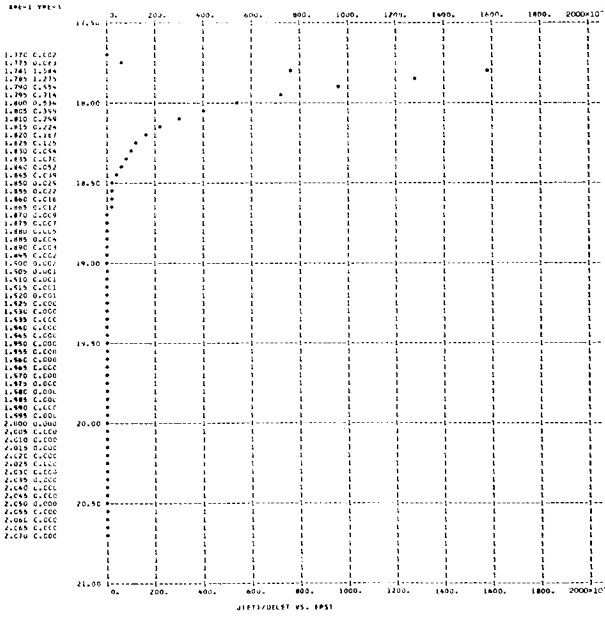
J = 0.314809E-10 KETAV= 0.129561E 02 KETFL= 0.274754E 10 TZERO = 0.100234E C6 TD = 0.133772E 04

Figure 3. - Continued.







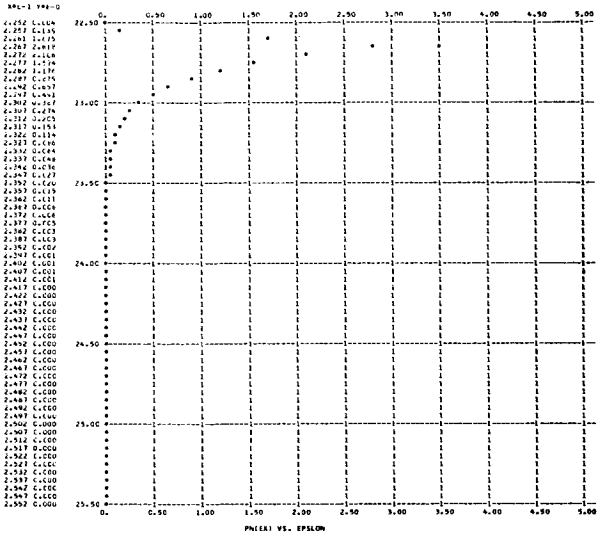


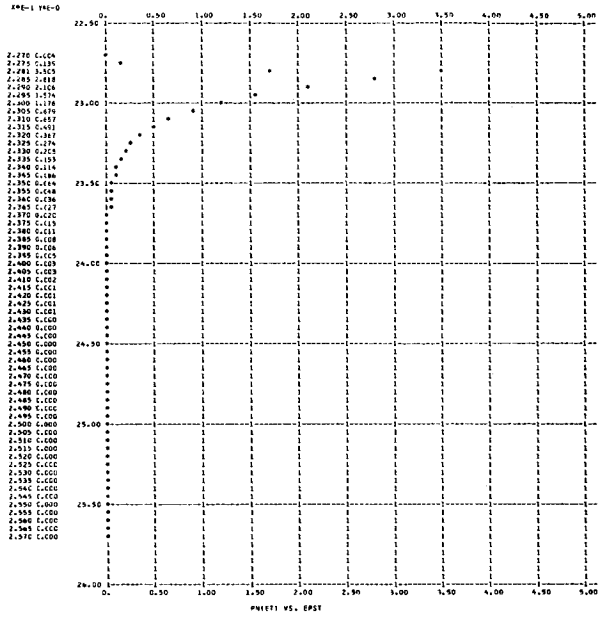
T = 0.20000000E 04 E = 0.10000002E 07 PHI = 8.00 AMU = 10.00 EVMAX = 17.6250

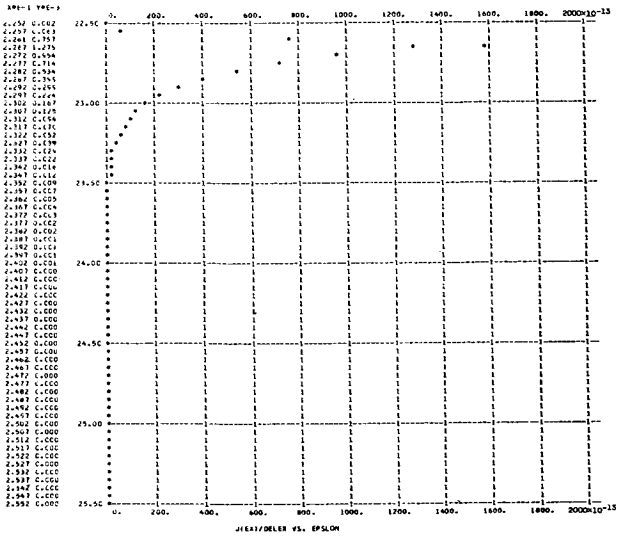
NEM = 0.14370953E 24 NEE = 0.78570895E 00 VXAV = 0.25010493E 09 KEXAV = 0.17784075E 02 KEXFL = 0.44480924E 10

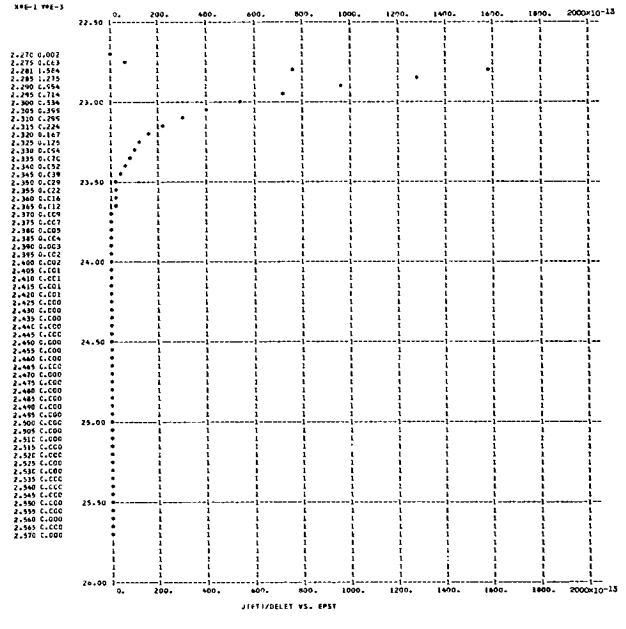
J = 0.314809E-10 KETAV= 0.179564E 02 KETFL= 0.449120E 10 TZERO = 0.138918E 06 TD = 0.133648E 04

Figure 3. - Cotinued.







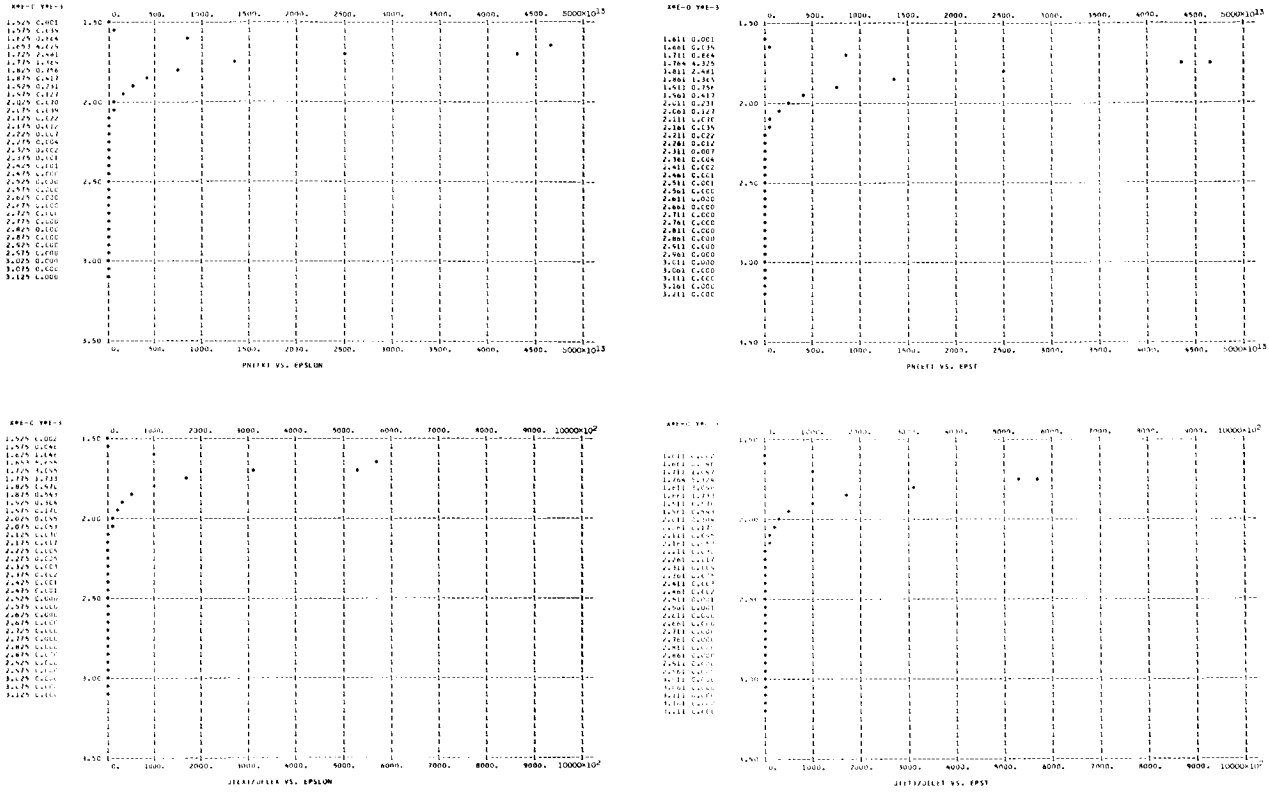


T = 0.20000000E 04 E = 0.10000002E 07 PHI = 8.00 AMU = 15.00 EVMAX = 22.6250

NEM = 0.26395449E 24 NEE = 0.69415763E 00 VXAV = 0.28309091E 09 KEXAV = 0.22784258E 02 KEXFL = 0.64502010E 10

J = 0.314809E-10 KETAV= 0.229566E 02 KETFL= 0.649899E 10 TZERO = 0.177601E 06 TD = 0.133582E 04

Figure 3. - Continued.

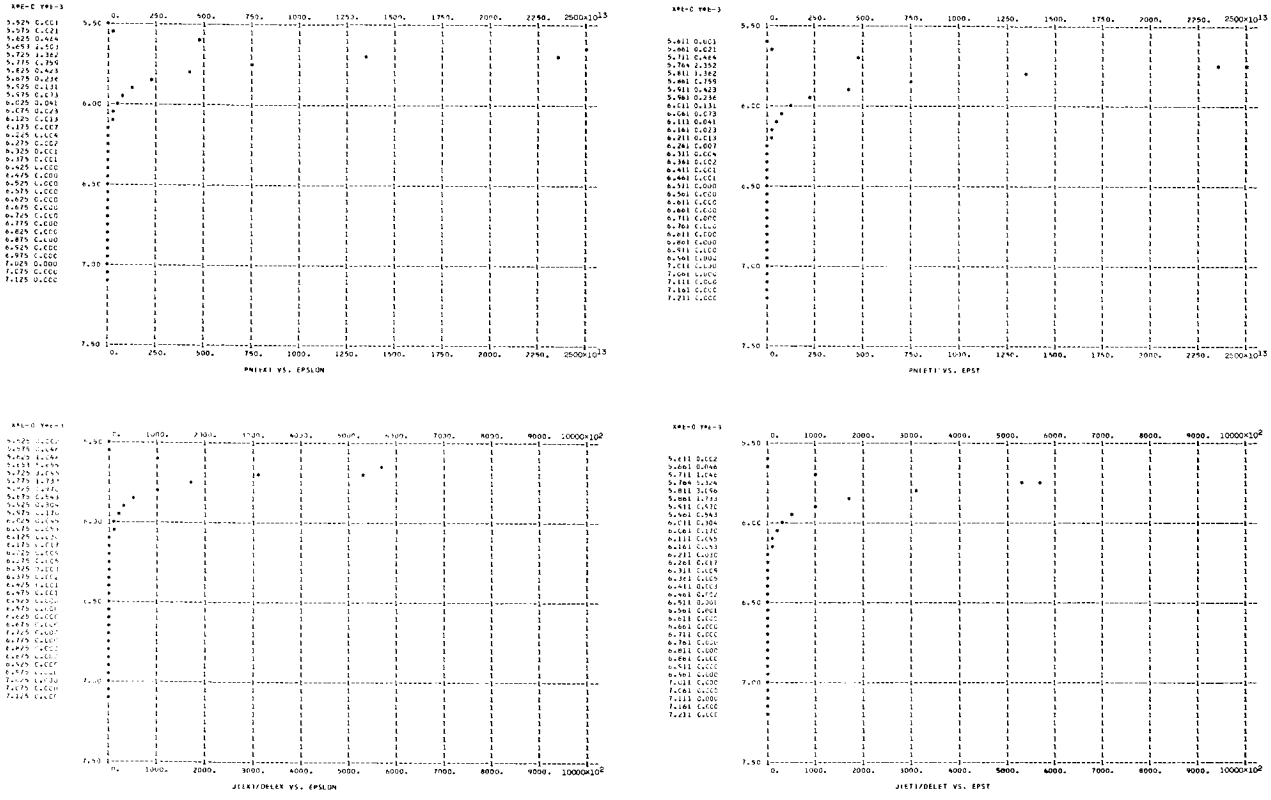


T = 1.00CC0000E 03 E = 0.10000002E 07 PHI = 1.00 AMU = 1.00 EVMAX = 1.6565

NEM = 0.45427866E 22 NEE = 0.54038217E 16 VXAV = 0.77933834E 08 KEXAV = 0.17277769E 01 KEXFL = 0.13481607E 09

J = 0.674667E 05 KETAV= 0.181396E 01 KETFL= 0.141532E 09 TZERO = 0.140335E 05 TD = 0.674676E 03

Figure 3. - Continued.

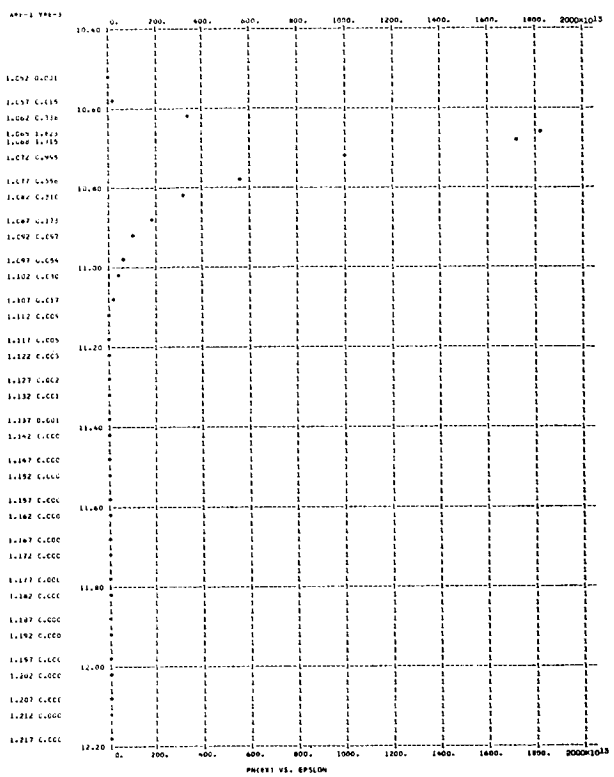


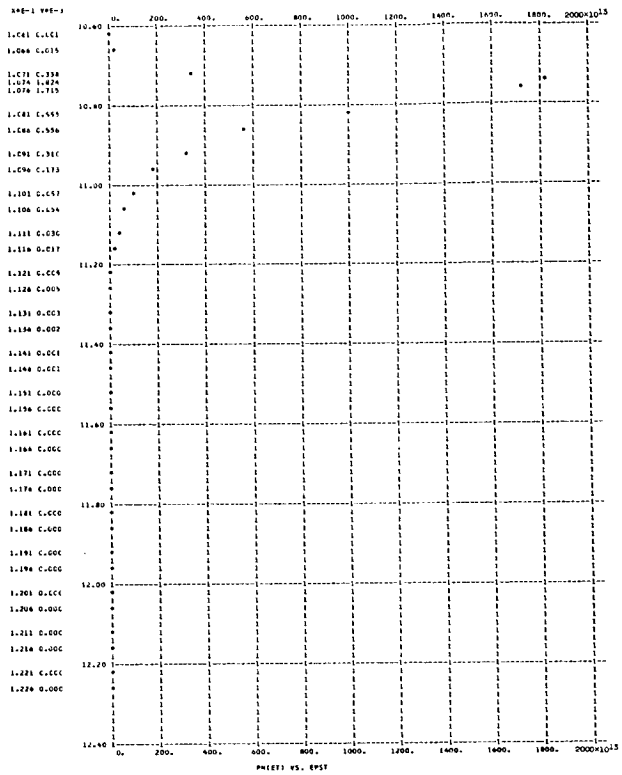
T = 1.00000000E 03 E = 0.10000002E 07 PHI = 1.00 AMU = 5.00 EVMAX = 5.6565

NEM = 0.50780508E 23 NEE = 0.29666898E 16 VXAV = 0.14195372E 09 KEXAV = 0.57292169E 01 KEXFL = 0.81337757E 09

J = 0.674655E 05 KETAV= 0.581540E 01 KETFL= 0.825611E 09 TZERO = 0.449902E 05 TD = 0.669252E 03

Figure 3. - Continued.



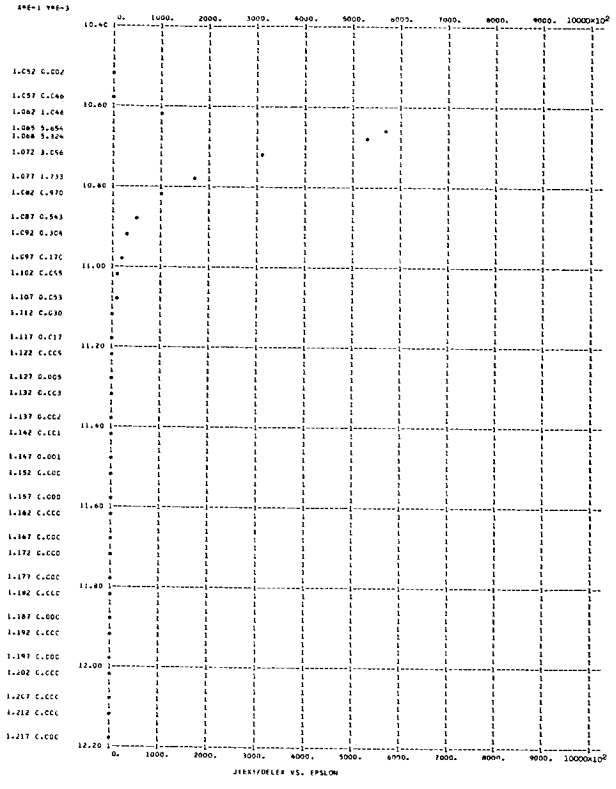


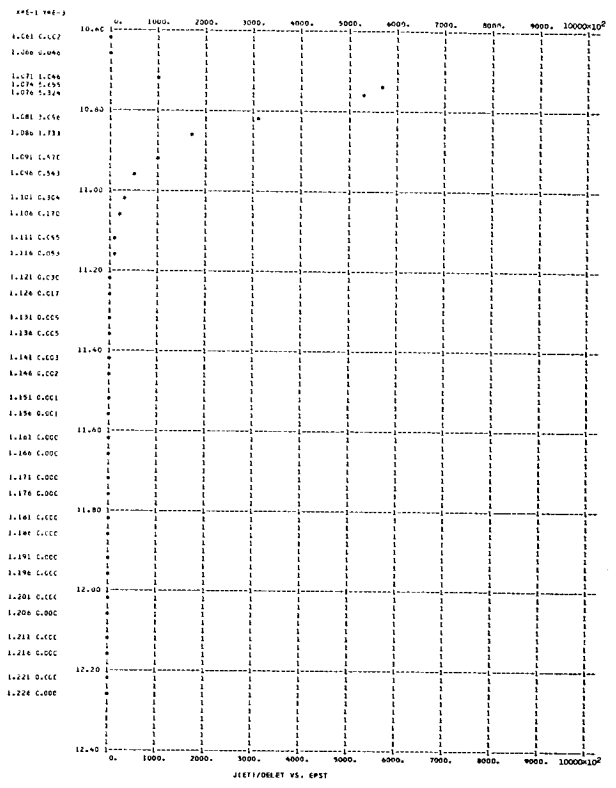
T = 1.00000000E 03 E = 0.10000002E 07 PHI = 1.00 AMU = 10.00 EVMAX = 10.6565

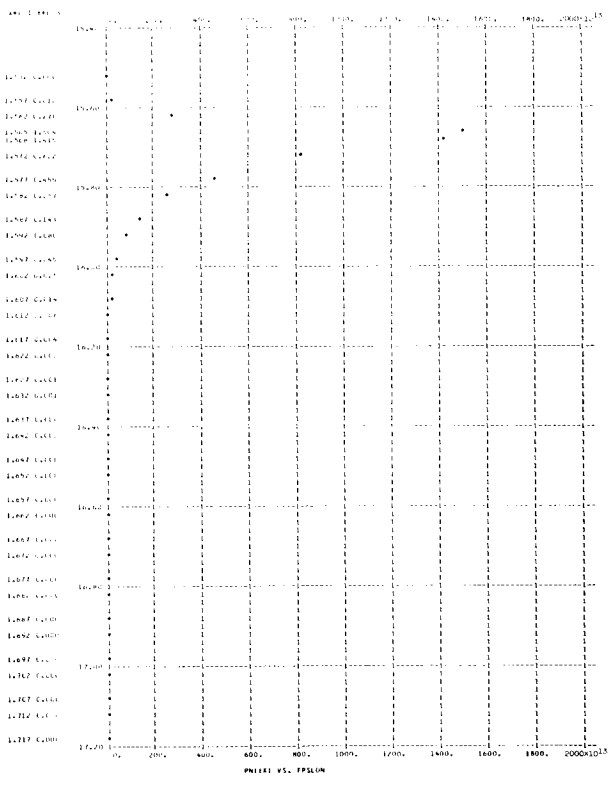
NEM = 0.14367002E 24 NEE = 0.21678215E 16 VXAV = 0.19426660E 09 KEXAV = 0.10729520E 02 KEXFL = 0.20844571E 10

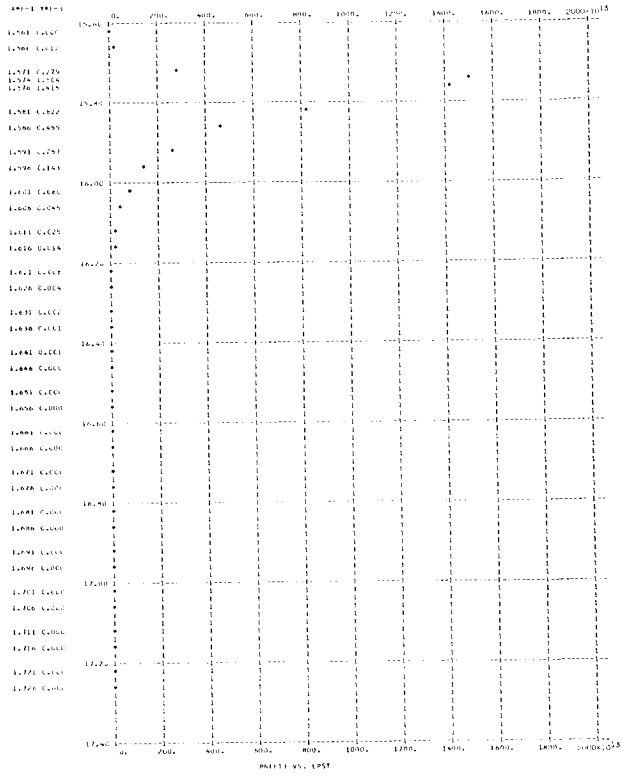
J = 0.674659E 05 KETAV= 0.108157E 02 KETFL= 0.210120E 10 TZERO = 0.836746E 05 TD = 0.668089E 03

Figure 3. - Continued.


0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000x10²
10.40
10.60
10.80
11.00
11.20
11.40
11.60
11.80
12.00
12.20
JEEK1/DELEK VS. EPSLON


0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000x10²
10.40
10.60
10.80
11.00
11.20
11.40
11.60
11.80
12.00
12.20
12.40
JEET1/DELET VS. EPST



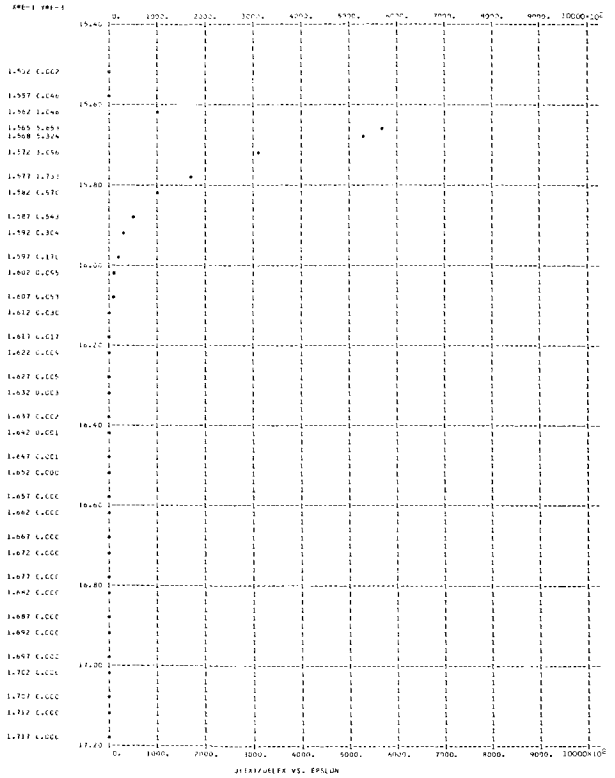


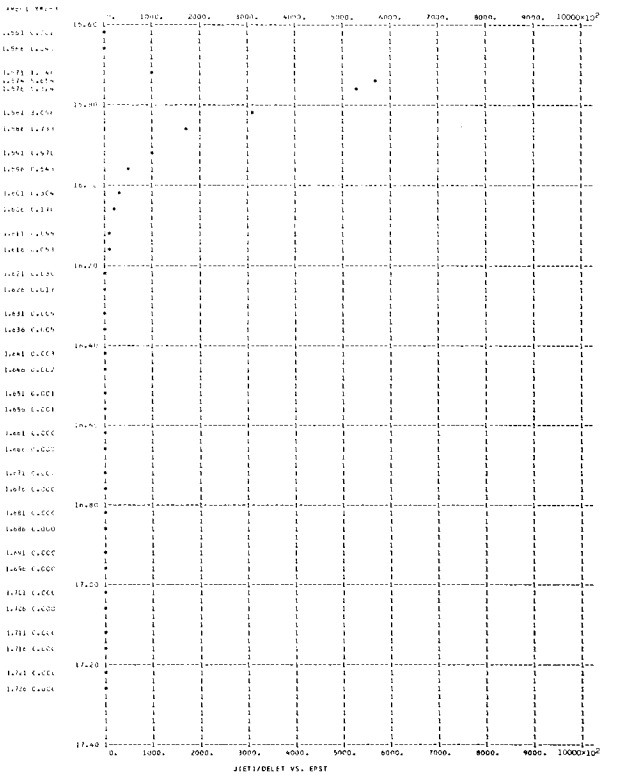
T = 1.00000000E 03 E = 0.10000002E 07 PHI = 1.00 AMU = 15.00 EVMAX = 15.6565

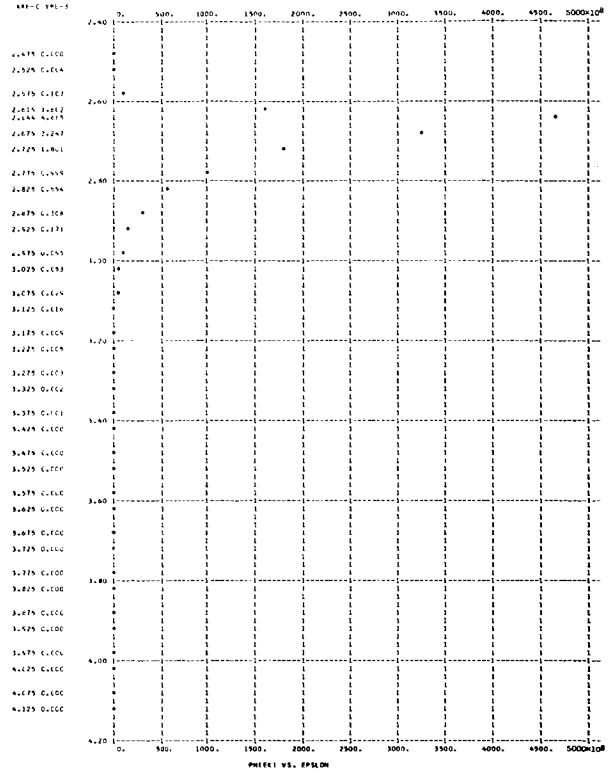
NEM = 0.26396224E 24 NEE = 0.17904255E 16 VXAV = 0.23521727E 09 KEXAV = 0.15729633E 02 KEXFL = 0.36999389E 10

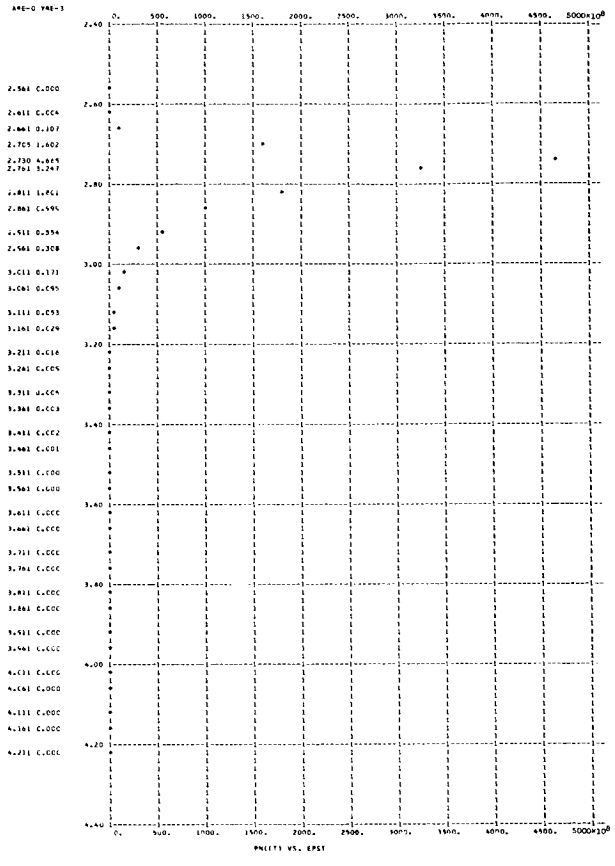
J = 0.674665E 05 KETAV= 0.158158E 02 KETFL= 0.372021E 10 TZERO = 0.122357E 06 TD = 0.667644E 03

Figure 3. - Continued.


0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000×10²
15.40
15.60
15.80
16.00
16.20
16.40
16.60
16.80
17.00
17.20
JET1/DELEPS VS. EPSLON


0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
9000.
10000×10²
15.60
15.80
16.00
16.20
16.40
16.60
16.80
17.00
17.20
17.40
JET1/DELET VS. EPST



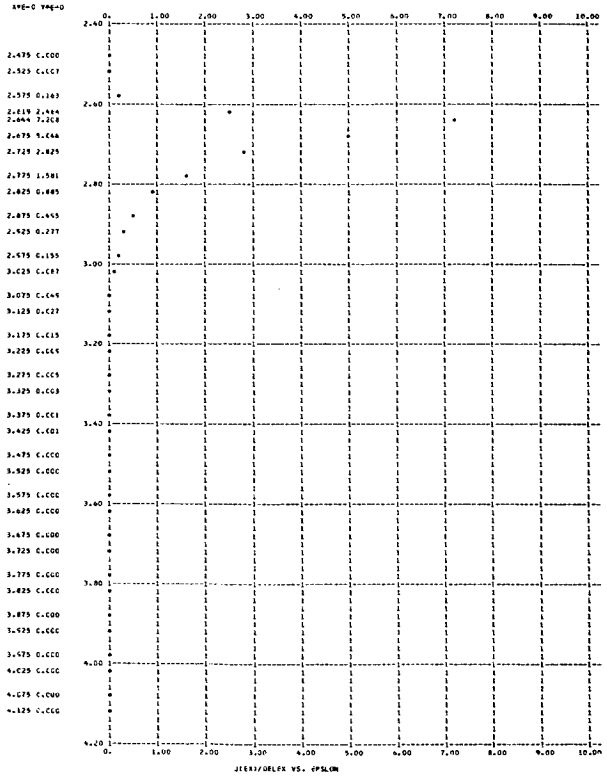


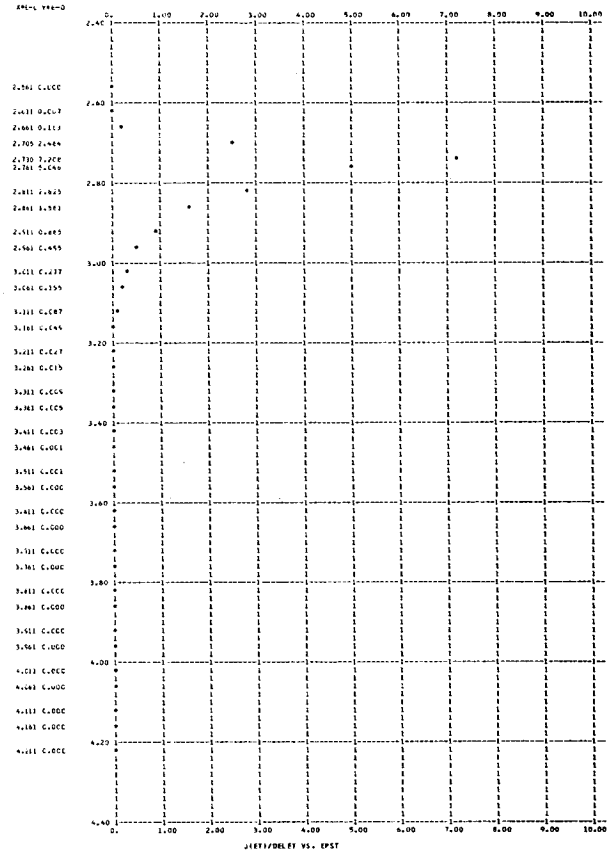
T = 1.00000000E 03 E = 0.10000002E 07 PHI = 2.00 AMU = 1.00 EVMAX = 2.6385

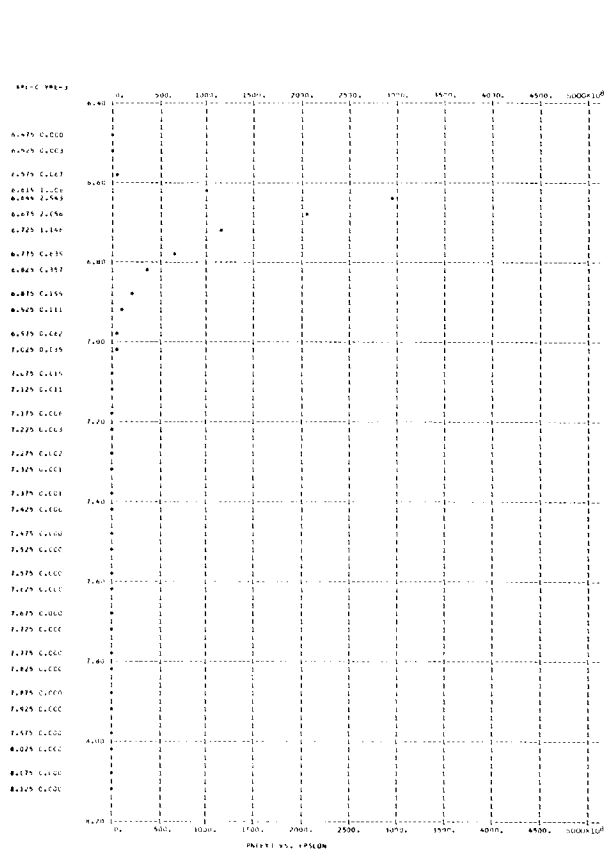
NEM = 0.45427783E 22 NEE = 0.48541886E 11 VXAV = 0.97623613E 08 KEXAV = 0.27101623E 01 KEXFL = 0.26471020E 09

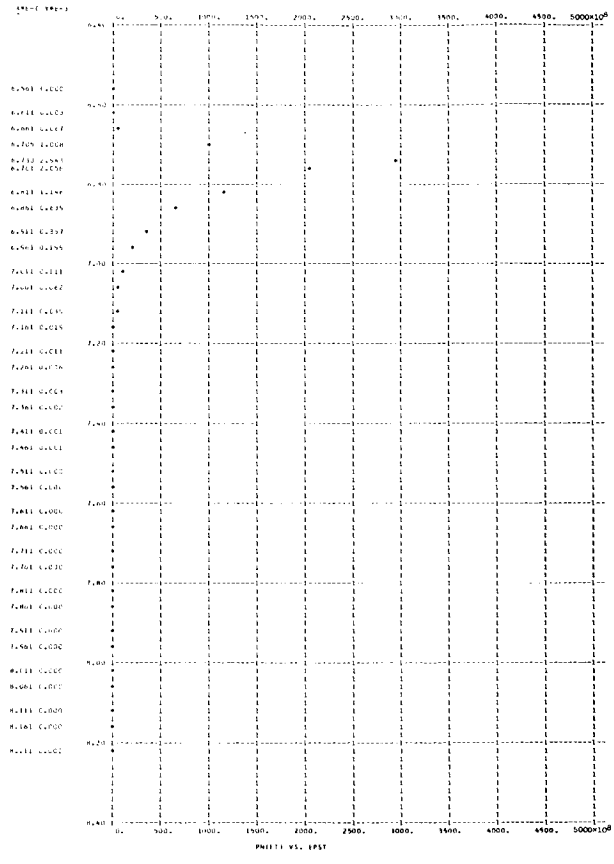
J = 0.759161E 00 KETAV= 0.279633E 01 KETFL= 0.273123E 09 TZERO = 0.216336E 05 TD = 0.671914E 03

Figure 3. - Continued.


XMI=0 YMI=0
0.
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
2.40
2.80
3.20
3.60
4.00
4.20
2.475 0.000
2.525 0.007
2.575 0.163
2.619 2.984
2.644 7.208
2.675 9.044
2.725 2.825
2.775 1.581
2.825 0.885
2.875 0.455
2.925 0.277
2.975 0.155
3.025 0.087
3.075 0.049
3.125 0.027
3.175 0.015
3.225 0.009
3.275 0.005
3.325 0.003
3.375 0.001
3.425 0.001
3.475 0.000
3.525 0.000
3.575 0.000
3.625 0.000
3.675 0.000
3.725 0.000
3.775 0.000
3.825 0.000
3.875 0.000
3.925 0.000
3.975 0.000
4.025 0.000
4.075 0.000
4.125 0.000
JTERJ/DELEX VS. EPSLON


XMI=1 YMI=0
0.
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
2.40
2.80
3.20
3.60
4.00
4.20
2.561 0.000
2.611 0.007
2.661 0.113
2.705 2.984
2.730 7.208
2.761 9.044
2.811 2.825
2.861 1.581
2.911 0.885
2.961 0.455
3.011 0.237
3.061 0.125
3.111 0.067
3.161 0.036
3.211 0.019
3.261 0.010
3.311 0.006
3.361 0.003
3.411 0.002
3.461 0.001
3.511 0.000
3.561 0.000
3.611 0.000
3.661 0.000
3.711 0.000
3.761 0.000
3.811 0.000
3.861 0.000
3.911 0.000
3.961 0.000
4.011 0.000
4.061 0.000
4.111 0.000
4.161 0.000
4.211 0.000
JTEFJ/DELEF VS. EPST



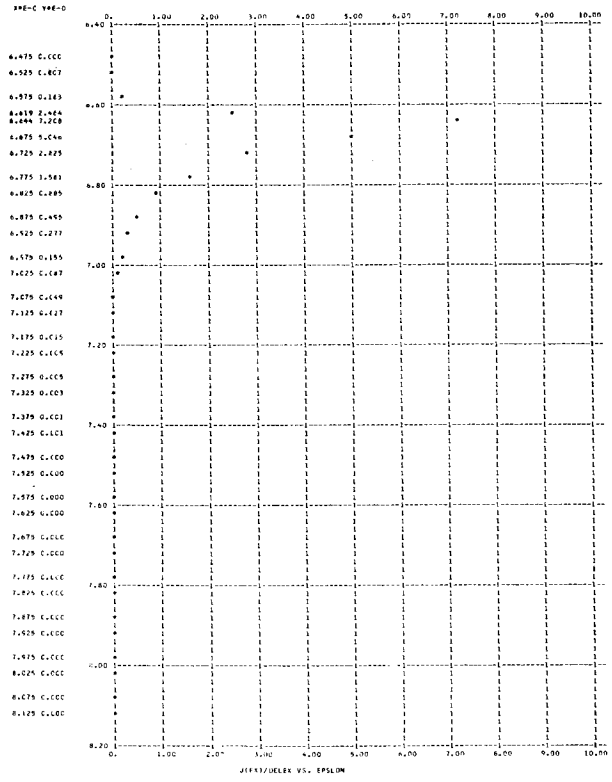


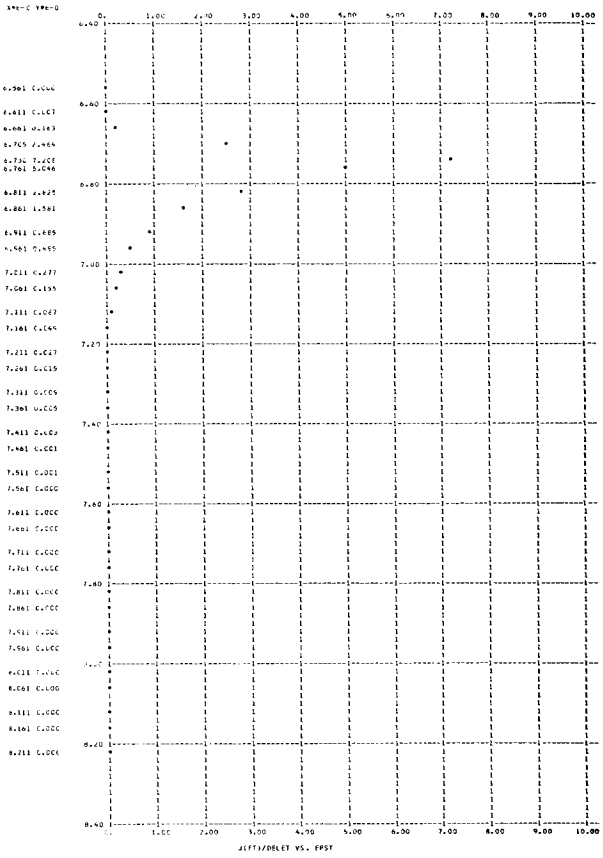
T = 1.00000000E 03 E = 0.10000002E 07 PHI = 2.00 AMU = 5.00 EVMAX = 6.6385

NEM = 0.50780506E 23 NEE = 0.30844121E 11 VXAV = 0.15363672E 09 KEXAV = 0.67109694E 01 KEXFL = 0.10311388E 10

J = 0.759154E 00 KETAV= 0.679714E 01 KETFL= 0.104438E 10 TZERO = 0.525854E 05 TD = 0.668858E 03

Figure 3. - Continued.


XME-C YME-0
0.
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
6.40
6.80
7.00
7.20
7.40
7.60
7.80
8.00
8.20
6.475 0.000
6.525 0.807
6.575 0.183
6.625 2.464
6.675 5.046
6.725 2.825
6.775 1.581
6.825 0.885
6.875 0.495
6.925 0.277
6.975 0.155
7.025 0.087
7.075 0.049
7.125 0.027
7.175 0.015
7.225 0.009
7.275 0.005
7.325 0.003
7.375 0.001
7.425 0.001
7.475 0.000
7.525 0.000
7.575 0.000
7.625 0.000
7.675 0.000
7.725 0.000
7.775 0.000
7.825 0.000
7.875 0.000
7.925 0.000
7.975 0.000
8.025 0.000
8.075 0.000
8.125 0.000
JEFF3/DELEX VS. EPSLON


XME-C YME-0
0.
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
6.40
6.60
6.80
7.00
7.20
7.40
7.60
7.80
8.00
8.20
8.40
6.561 0.000
6.611 0.001
6.661 0.003
6.705 7.464
6.736 7.025
6.761 5.046
6.811 2.825
6.861 1.581
6.911 0.885
6.961 0.495
7.011 0.277
7.061 0.155
7.111 0.087
7.161 0.049
7.211 0.027
7.261 0.015
7.311 0.009
7.361 0.005
7.411 0.003
7.461 0.001
7.511 0.001
7.561 0.000
7.611 0.000
7.661 0.000
7.711 0.000
7.761 0.000
7.811 0.000
7.861 0.000
7.911 0.000
7.961 0.000
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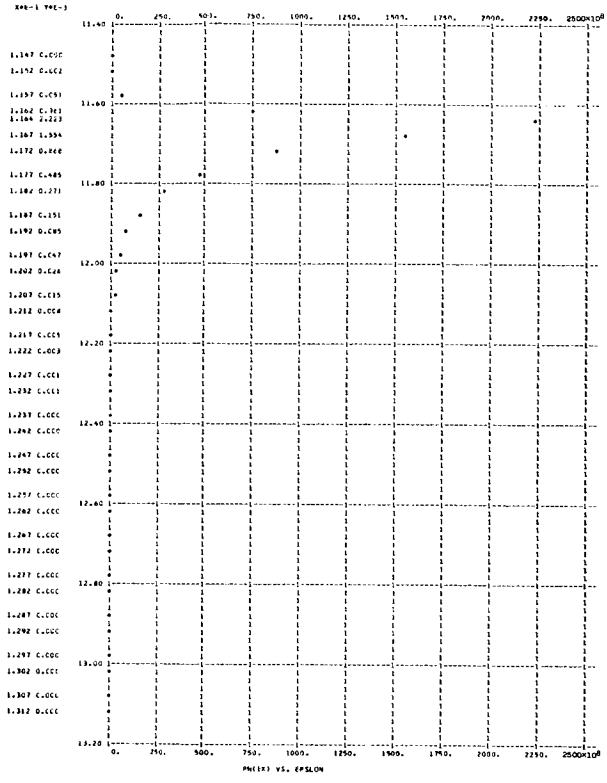
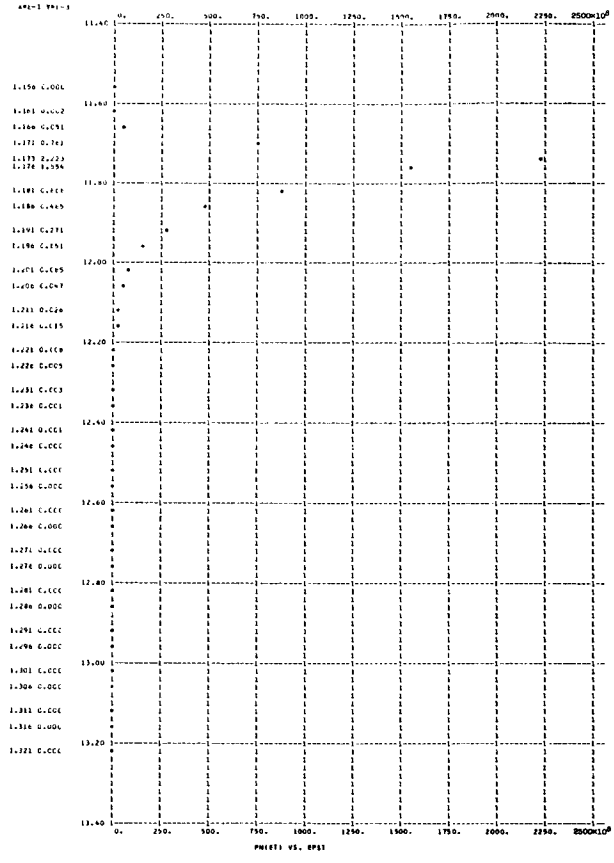
8.211 0.000
JEFT3/DELET VS. EPST



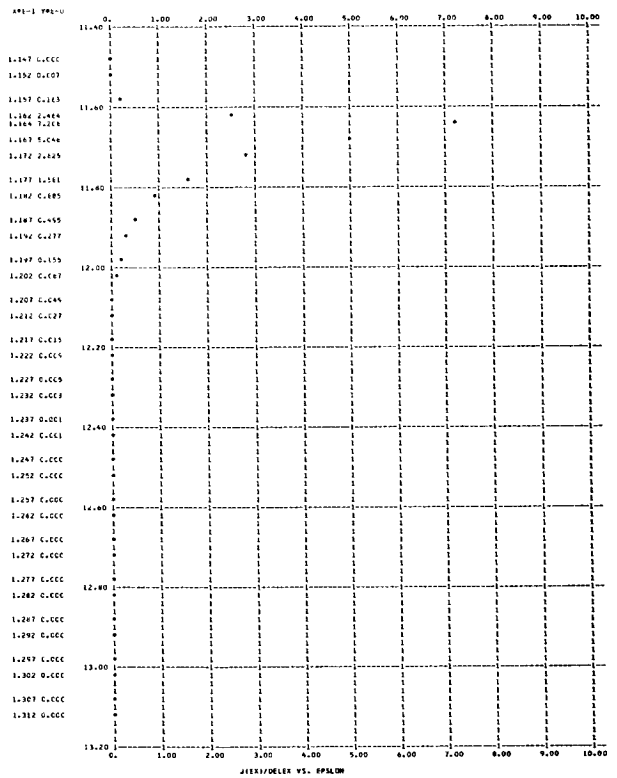


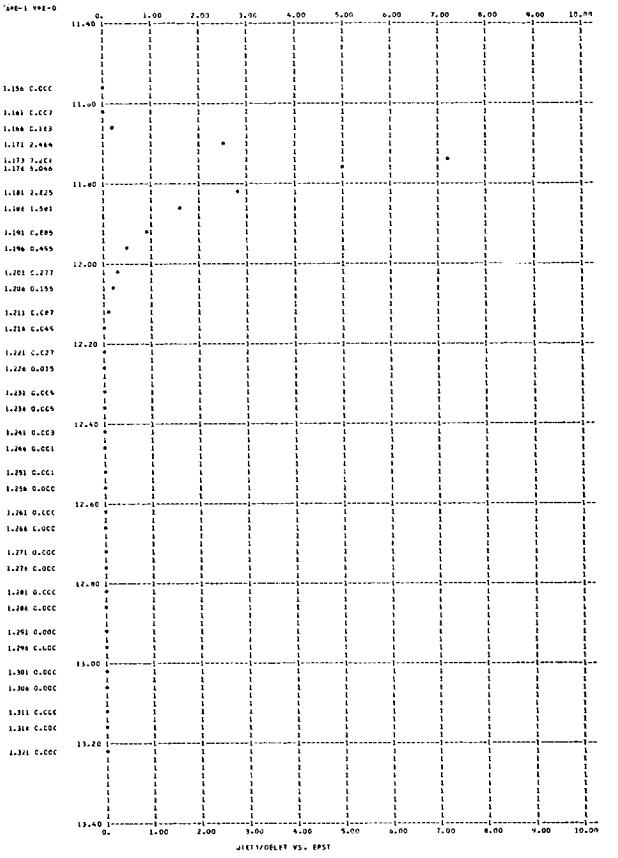
T = 1.00000000E 03 E = 0.10000002E 07 PHI = 2.00 AMU = 10.00 EVMAX = 11.6385

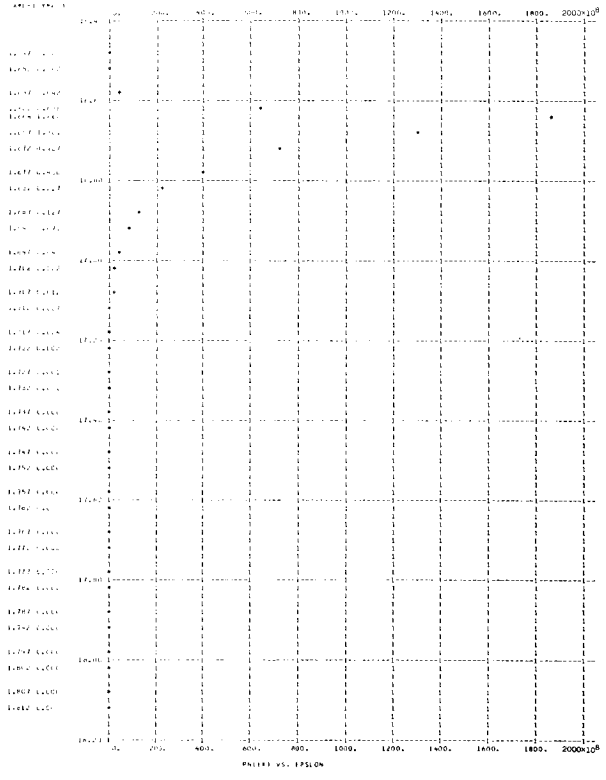
NEM = 0.14367002E 24 NEE = 0.23348315E 11 VXAV = 0.20295953E 09 KEXAV = 0.11711210E 02 KEXFL = 0.23769683E 10

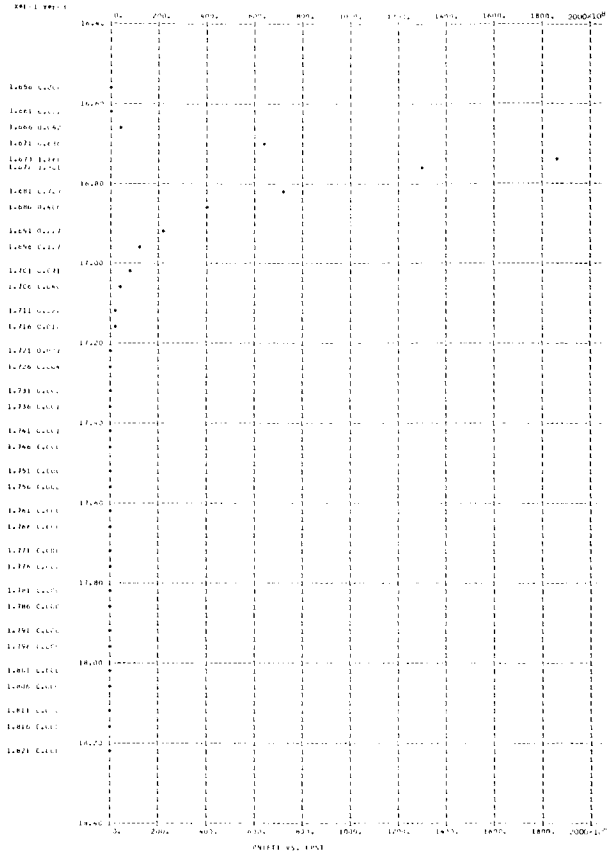
J = 0.759150E C0 KETAV= 0.117974E 02 KETFL= 0.239446E 10 TZERO = 0.912693E 05 TD = 0.667918E 03

Figure 3. - Continued.


J(EXI)/DELEX VS. EPSLON


J(ET)/DELET VS. EPST



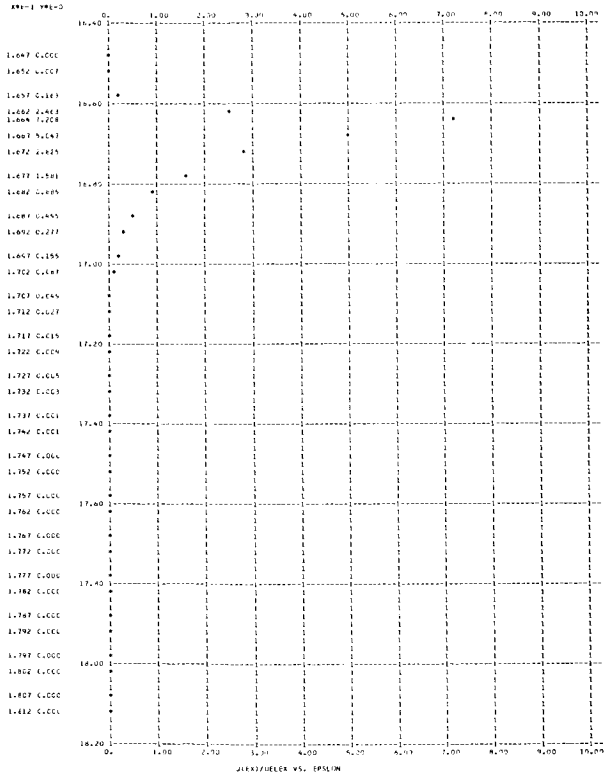


T = 1.00000000E 03 E = 0.10000002E 07 PHI = 2.00 AMU = 15.00 EVMAX = 16.6385

NEM = 0.26396224E 24 NEE = 0.19545514E 11 VXAV = 0.24244618E 09 KEXAV = 0.16711307E 02 KEXFL = 0.40516488E 10

J = 0.755145E CC KETAV= 0.167975E 02 KETFL= 0.407254E 10 TZERO = 0.129952F 06 TO = 0.667520E 03

Figure 3. - Continued.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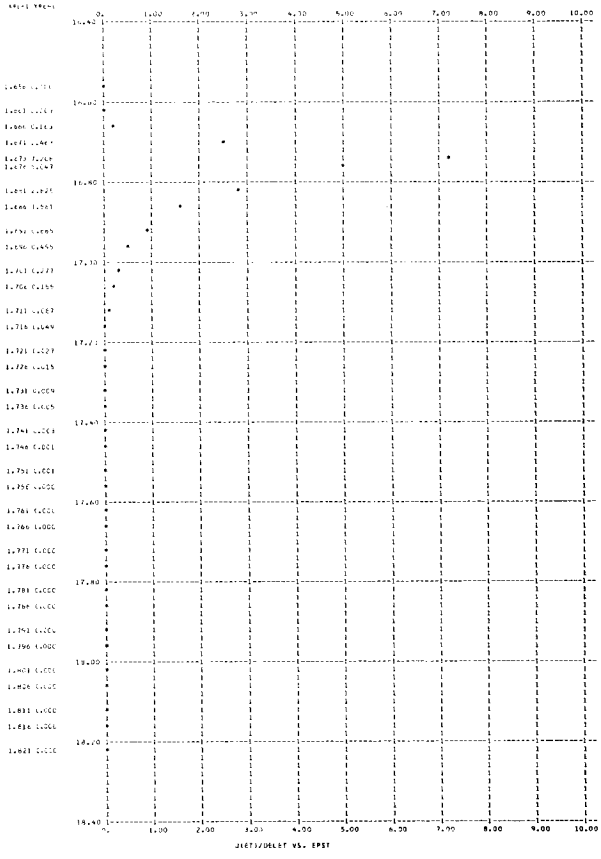
JLEX)/DELEX VS. EPSLON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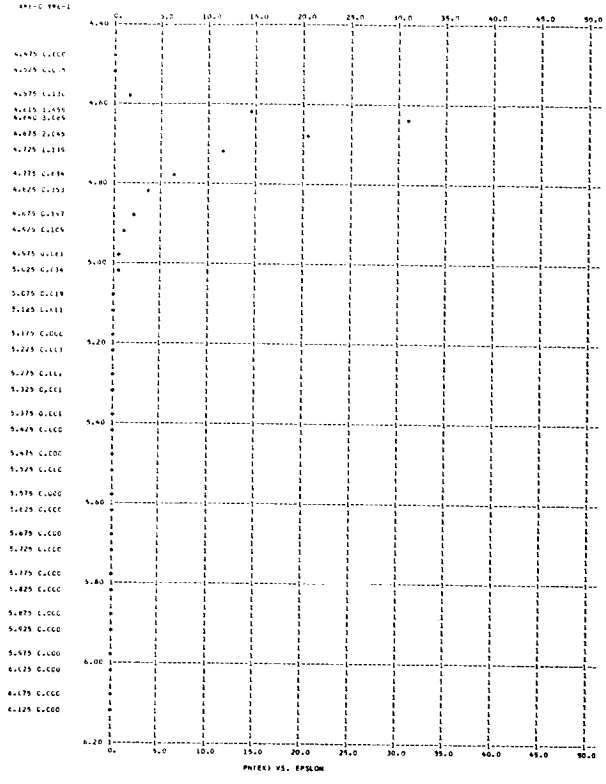
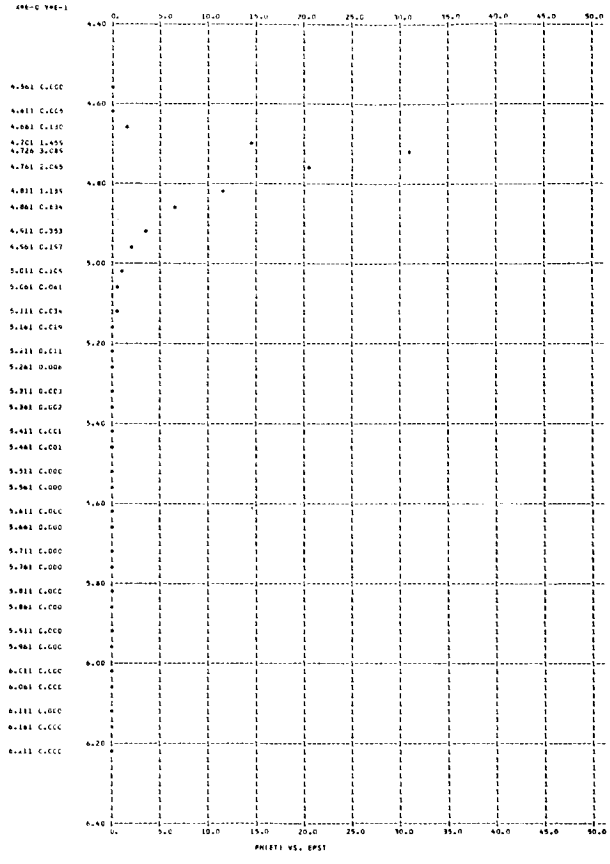
JLET)/DELET VS. EPST



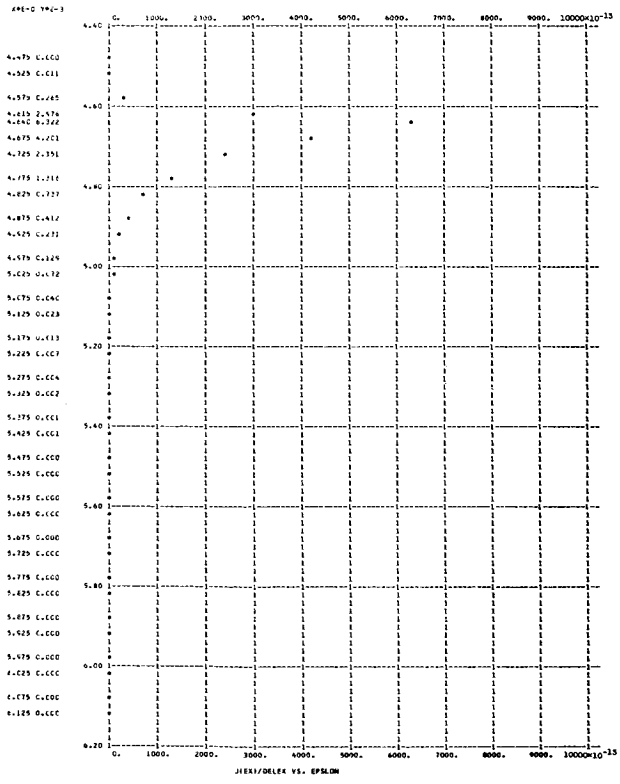


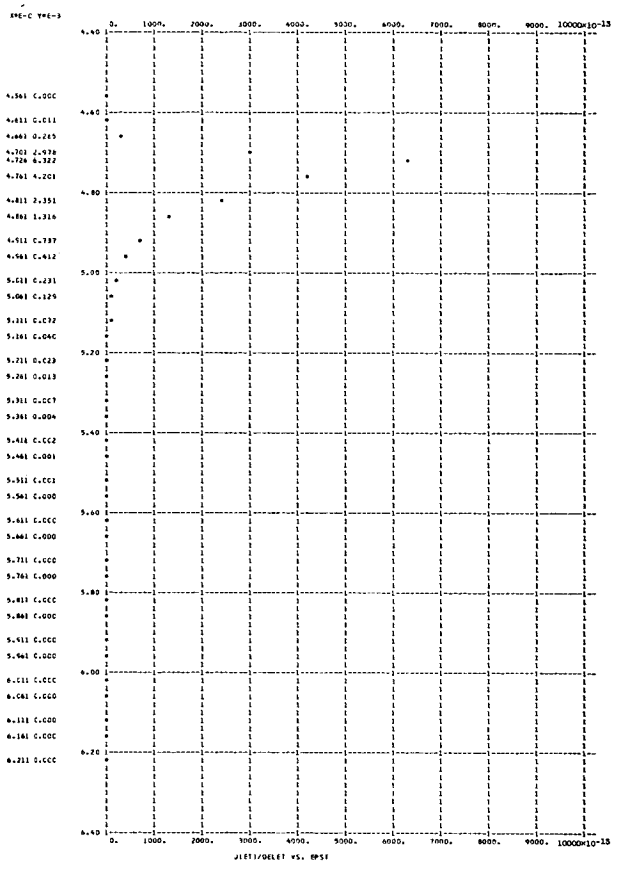
T = 1.0CCC0000E 03 E = 0.10000002E 07 PHI = 4.00 AMU = 1.00 EVMAX = 4.6295

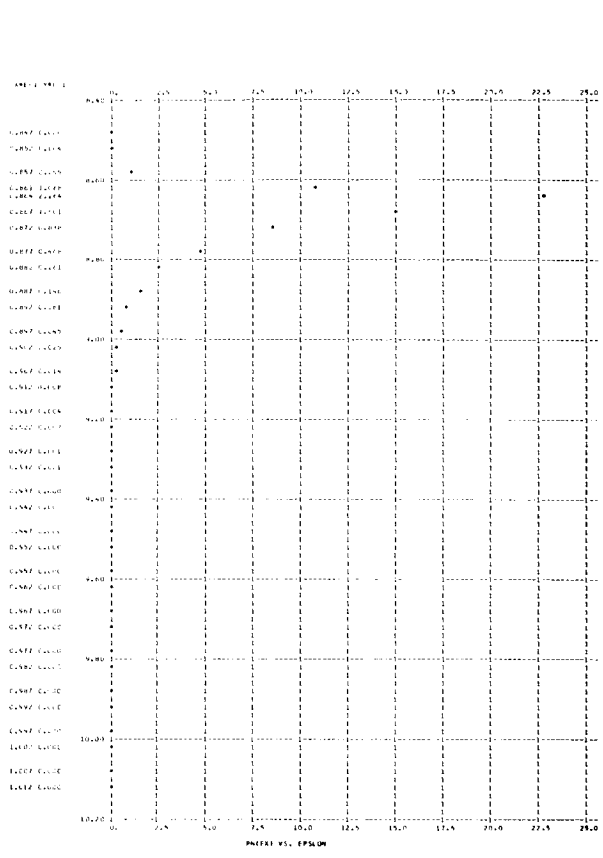
NEM = 0.45427783E 22 NEE = 0.34379674E 01 VXAV = 0.12858605E 09 KEXAV = 0.47011203E 01 KEXFL = 0.60460185E 09

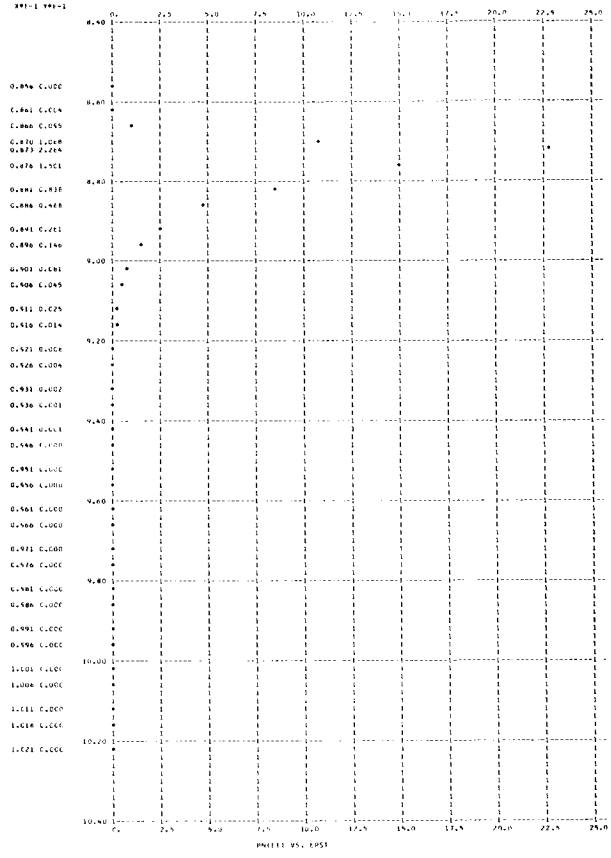
J = 0.708204E-10 KETAV= 0.478729E 01 KETFL= 0.615682E 09 TZERO = 0.370364E 05 TD = 0.669741E 03

Figure 3. - Continued.


JIEXI/DELEX VS. EPSLON


JIETI/DELET VS. EPSI



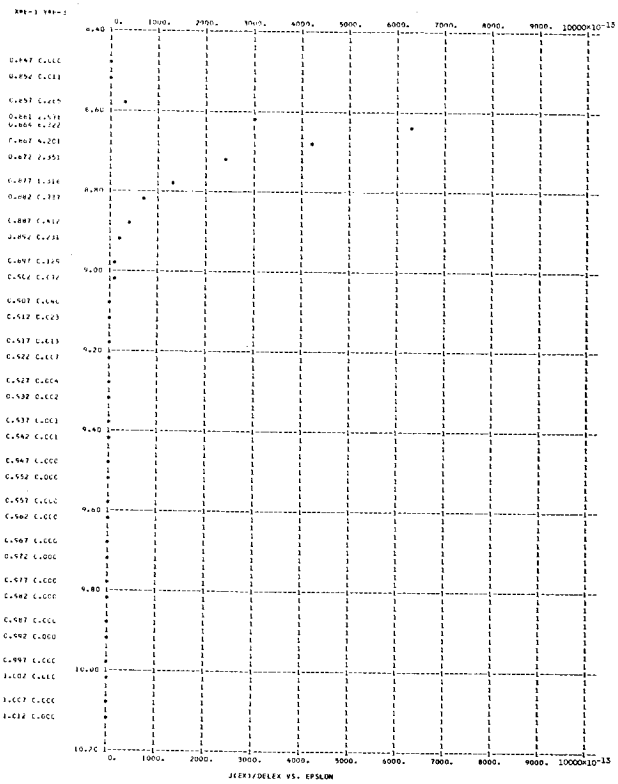


T = 1.00000000E 03 E = 0.10000002E 07 PHI = 4.00 AMU = 5.00 EVMAX = 8.6295

NEM = 0.50780506E 23 NEE = 0.25269204E 01 VXAV = 0.17494553E 09 KEXAV = 0.87014849E 01 KEXFL = 0.15223627E 10

J = 0.708202E-10 KETAV= 0.878766E 01 KETFL= 0.153744E 10 TZERO = 0.679848E 05 TD = 0.668342E 03

Figure 3. - Continued.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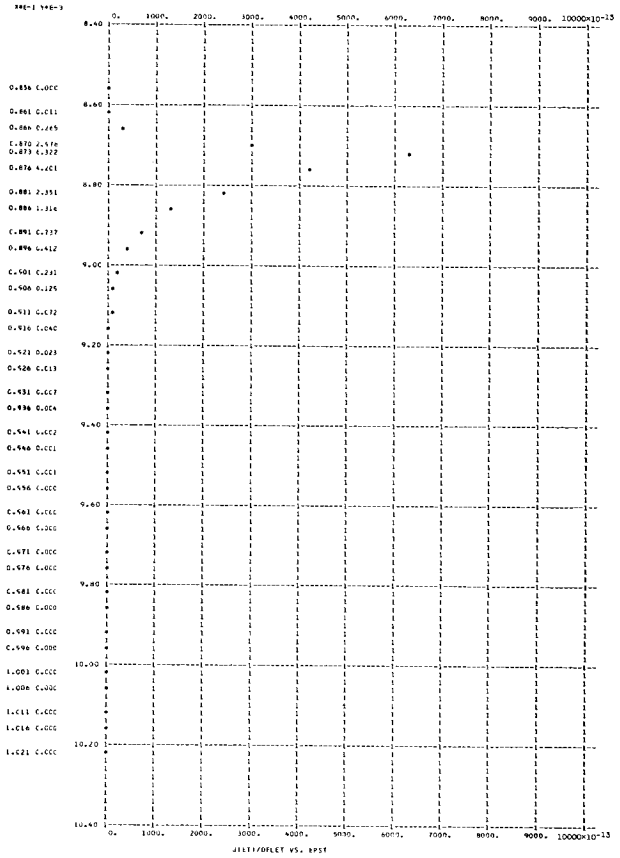
JEER3/DELEX VS. EPSLON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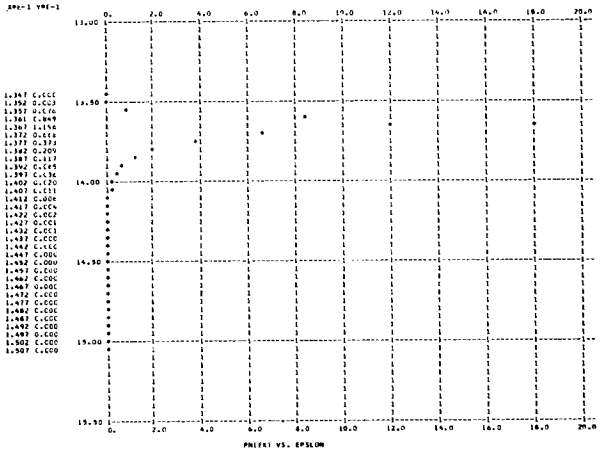
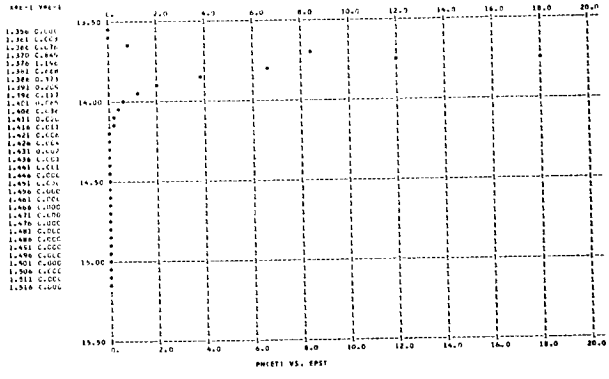
JELT1/DELET VS. EPSI



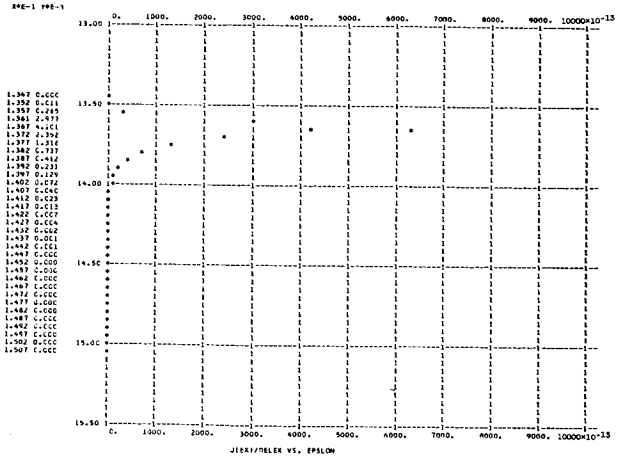


T = 1.COC00000E 03 E = 0.10000002E 07 PHI = 4.00 AMU = 10.00 EVMAX = 13.6295

NEM = 0.14367002E 24 NEE = 0.20137110E 01 VXAV = 0.21953095E 09 KEXAV = 0.13701645E 02 KEXFL = 0.30079963E 10

J = 0.708199E-10 KETAV= 0.137878E 02 KETFL= 0.302691E 10 TZERO = 0.106668E 06 TD = 0.667722E 03

Figure 3. - Continued.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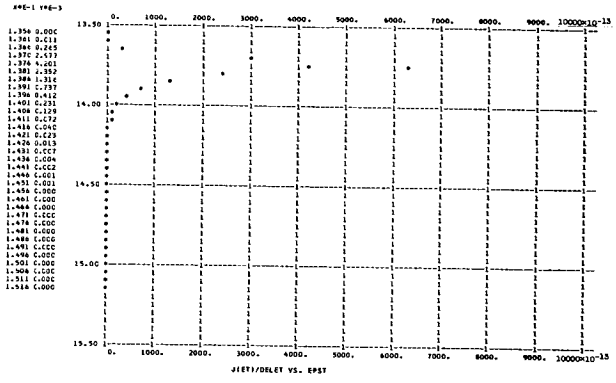
JIEXI/DELEK VS. EPSLON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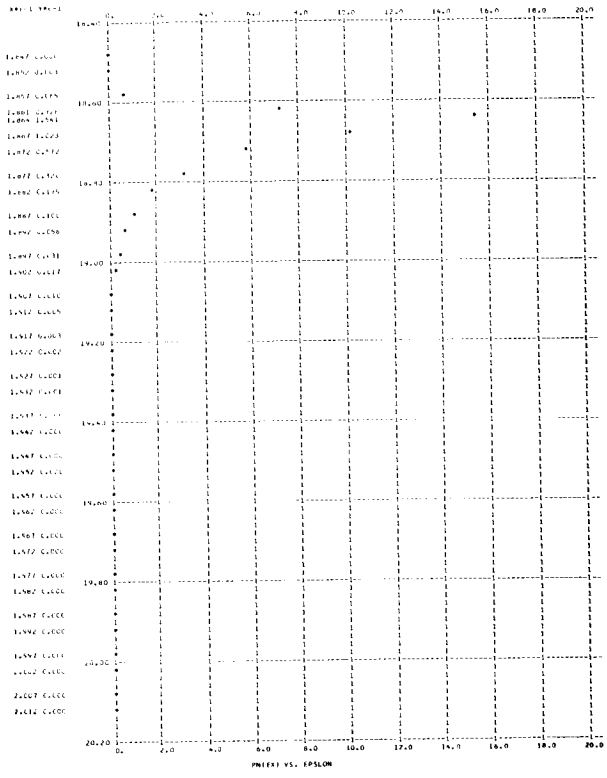
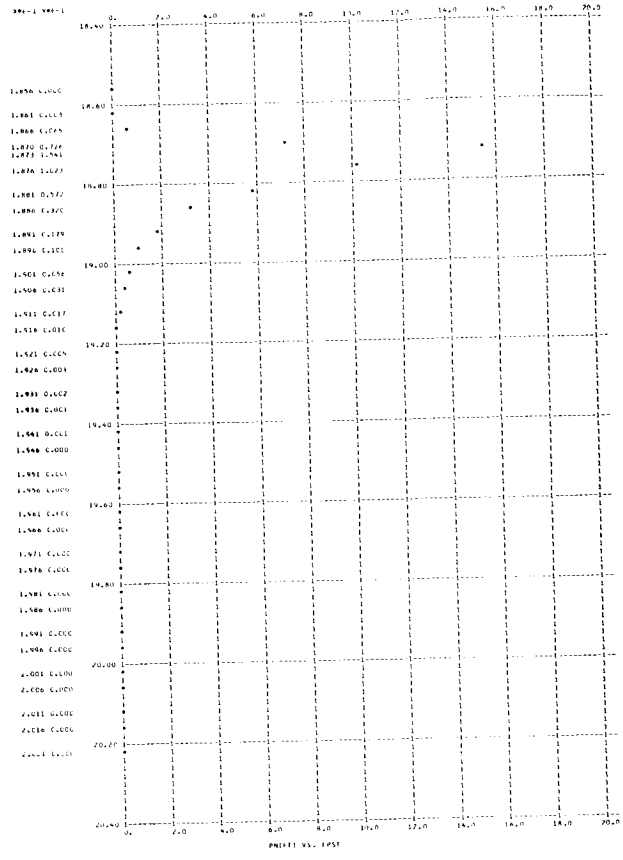
JIETI/DELET VS. EPST



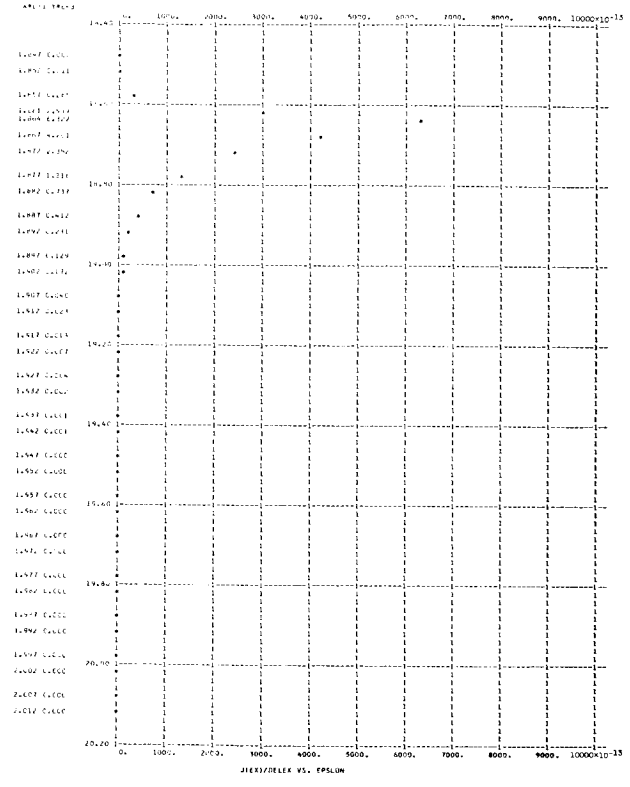


T = 1.C00C0000E 03 E = C.10000002E 07 PHI = 4.00 AMU = 15.00 EVMAX = 18.6295

NEM = 0.26396224E 24 NEE = 0.17236125E 01 VXAV = 0.25647862E 09 KEXAV = 0.18701718E 02 KEXFL = 0.47966436E 10

J = 0.708196E-10 KETAV= 0.187879E 02 KETFL= 0.481874E 10 TZERO = 0.145351E 06 TO = 0.667431E 03

Figure 3. - Continued.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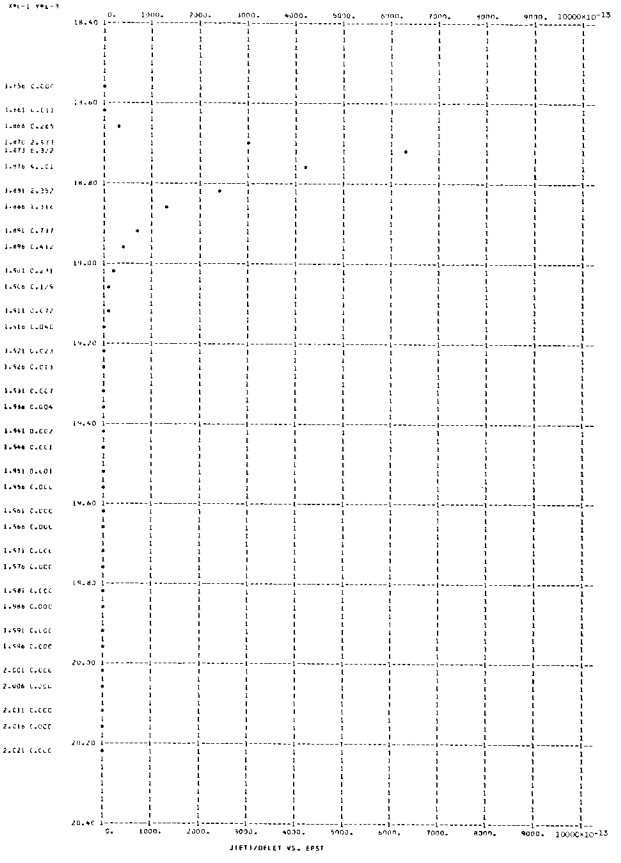
JIEX)/DELEX VS. EPSLON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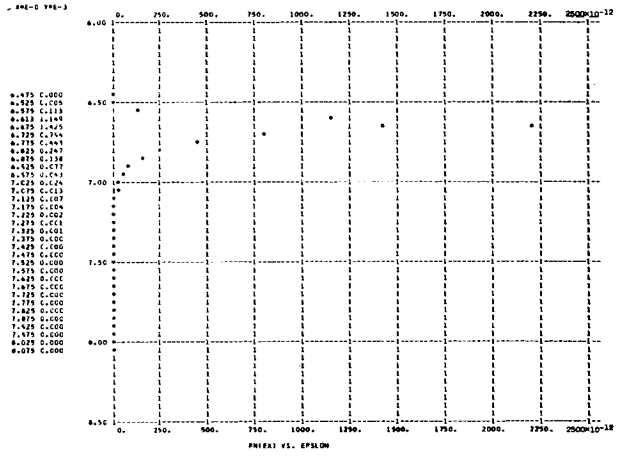
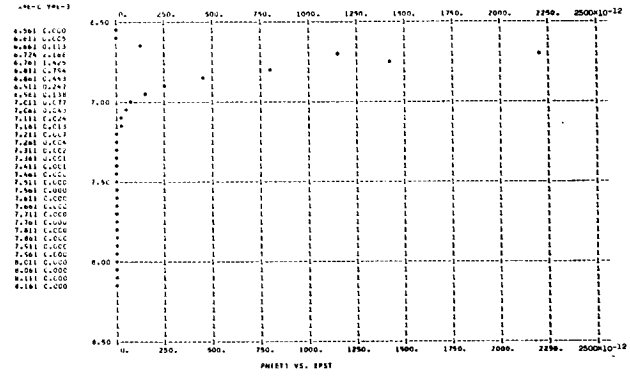
JIETI/DELET VS. EPST



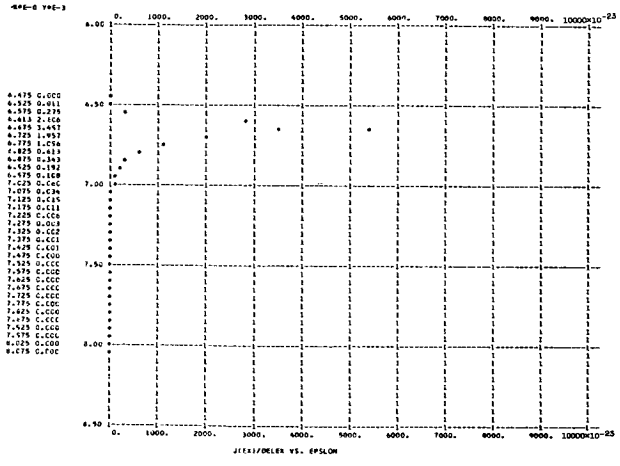


T = 1.00000000E 03 E = 0.10000002E 07 PHI = 6.00 AMU = 1.00 EVMAX = 6.6265

NEM = 0.45427783E 22 NEE = 0.24873060E-09 VXAV = 0.15349122E 09 KEXAV = 0.66982624E 01 KEXFL = 0.10282115E 10

J = 0.611611E-20 KETAV= 0.678443E 01 KETFL= 0.104144E 10 TZERO = 0.524871E 05 TD = 0.668838E 03

Figure 3. - Continued.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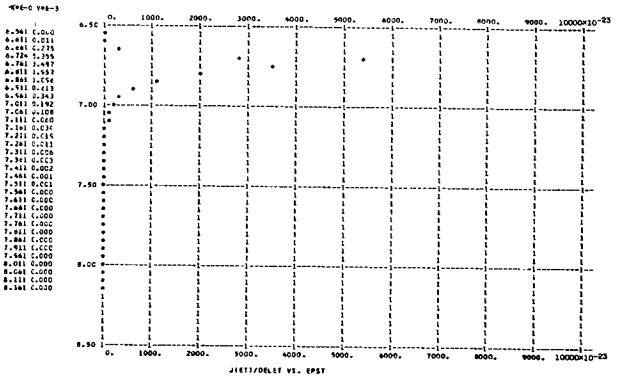
J(ES)/DELES VS. EPSLON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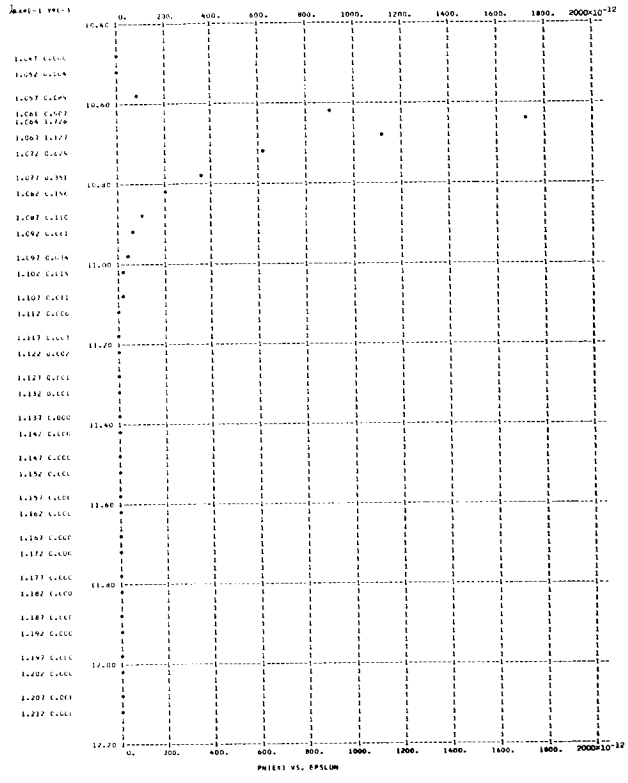
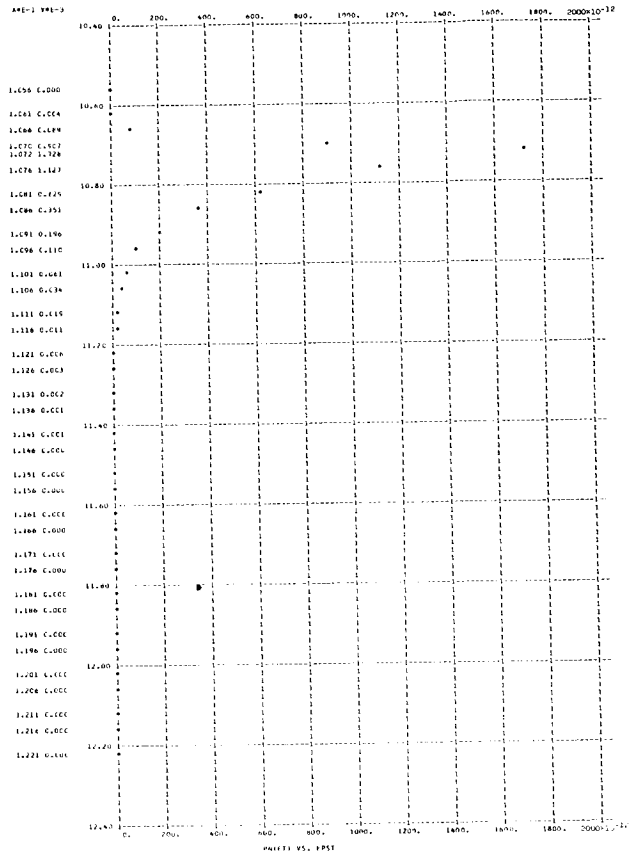
J(ES)/DELES VS. EPST



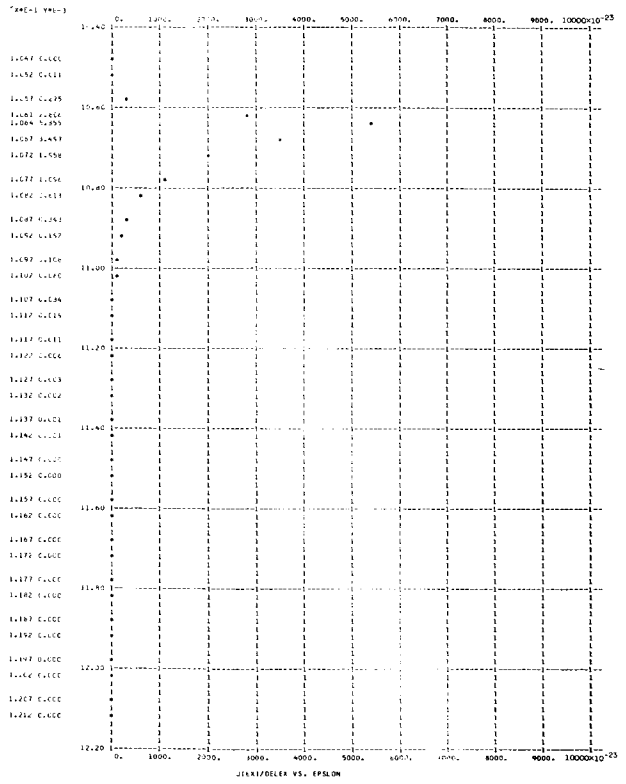


T = 1.CCOCOOOOE 03 E = 0.10000002E 07 PHI = 6.00 AMU = 5.00 EVMAX = 10.6265

NEM = 0.50780506E 23 NEE = 0.19680836E-09 VXAV = 0.19398531E 09 KEXAV = 0.10698471E 02 KEXFL = 0.20754158E 10

J = 0.61161CE-20 KETAV= 0.107846E 02 KETFL= 0.209213E 10 TZERO = 0.834343E 05 TD = 0.668039E 03

Figure 3. - Continued.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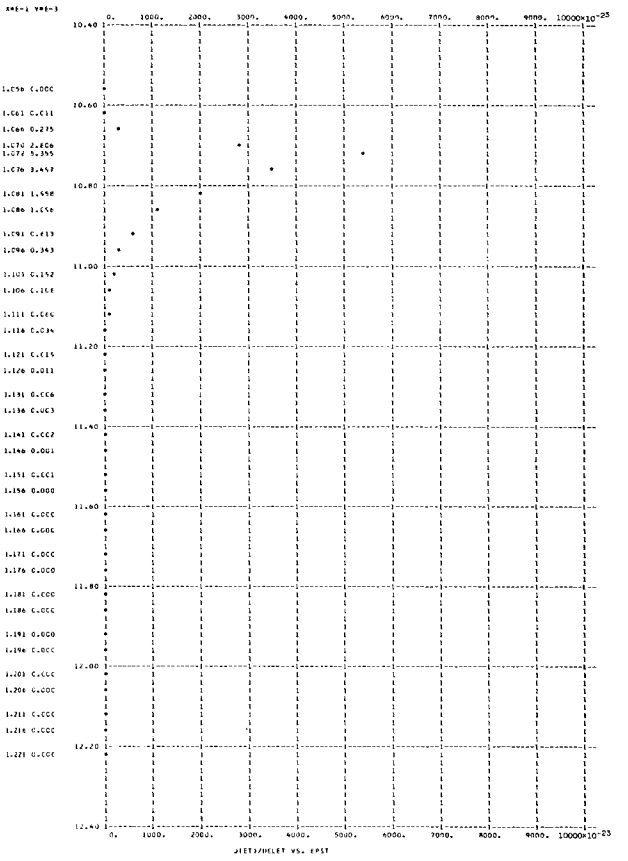
JE(K1)/DELER VS. EPSLON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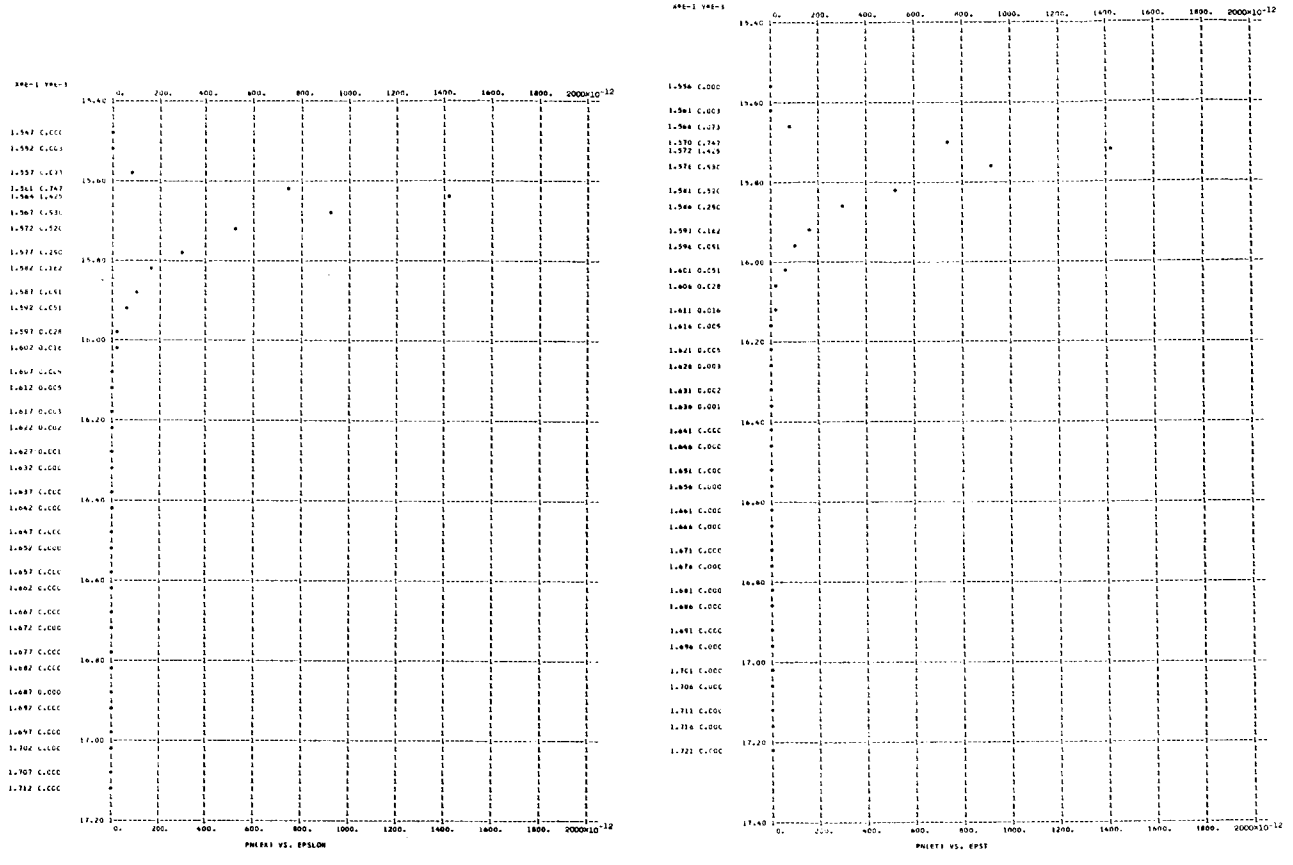
JIET3/HELET VS. EPST

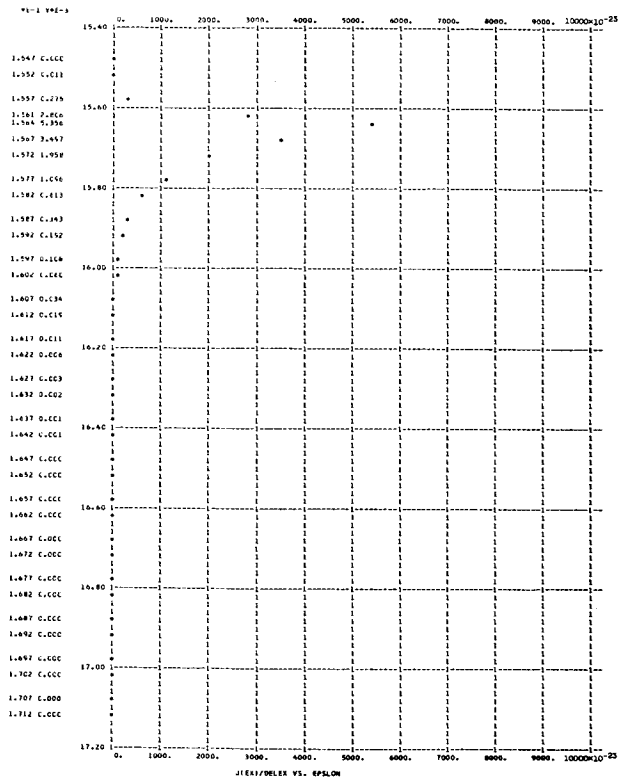


T = 1.00000000E 03 E = 0.10000002E 07 PHI = 6.00 AMU = 10.00 EVMAX = 15.6265

NEM = 0.14367002E 24 NEE = 0.16246933E-09 VXAV = 0.23498502E 09 KEXAV = 0.15698585E 02 KEXFL = 0.36889896E 10

J = 0.611609E-20 KETAV= 0.157848E 02 KETFL= 0.370924E 10 TZERO = 0.122117E 06 TD = 0.667594E 03

Figure 3. - Continued.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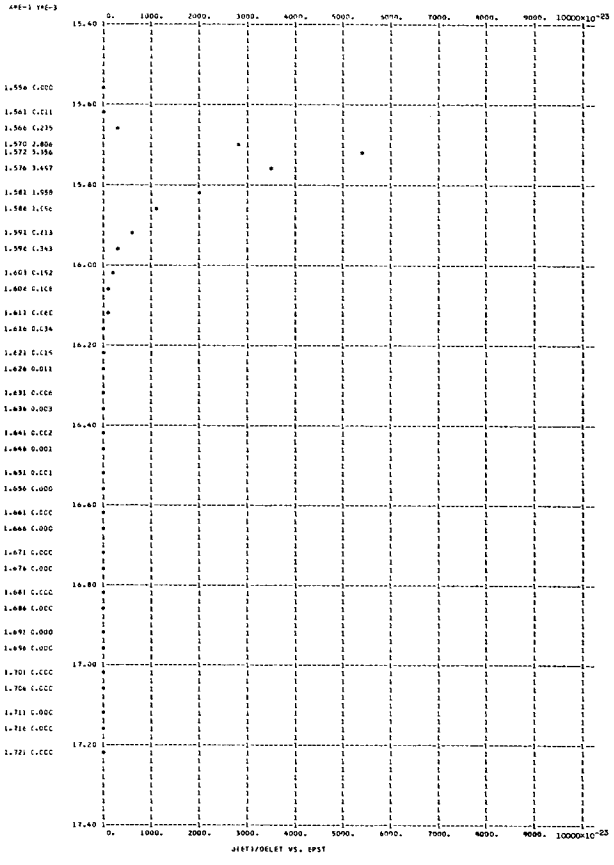
J(EX)/DELEX VS. EPSLON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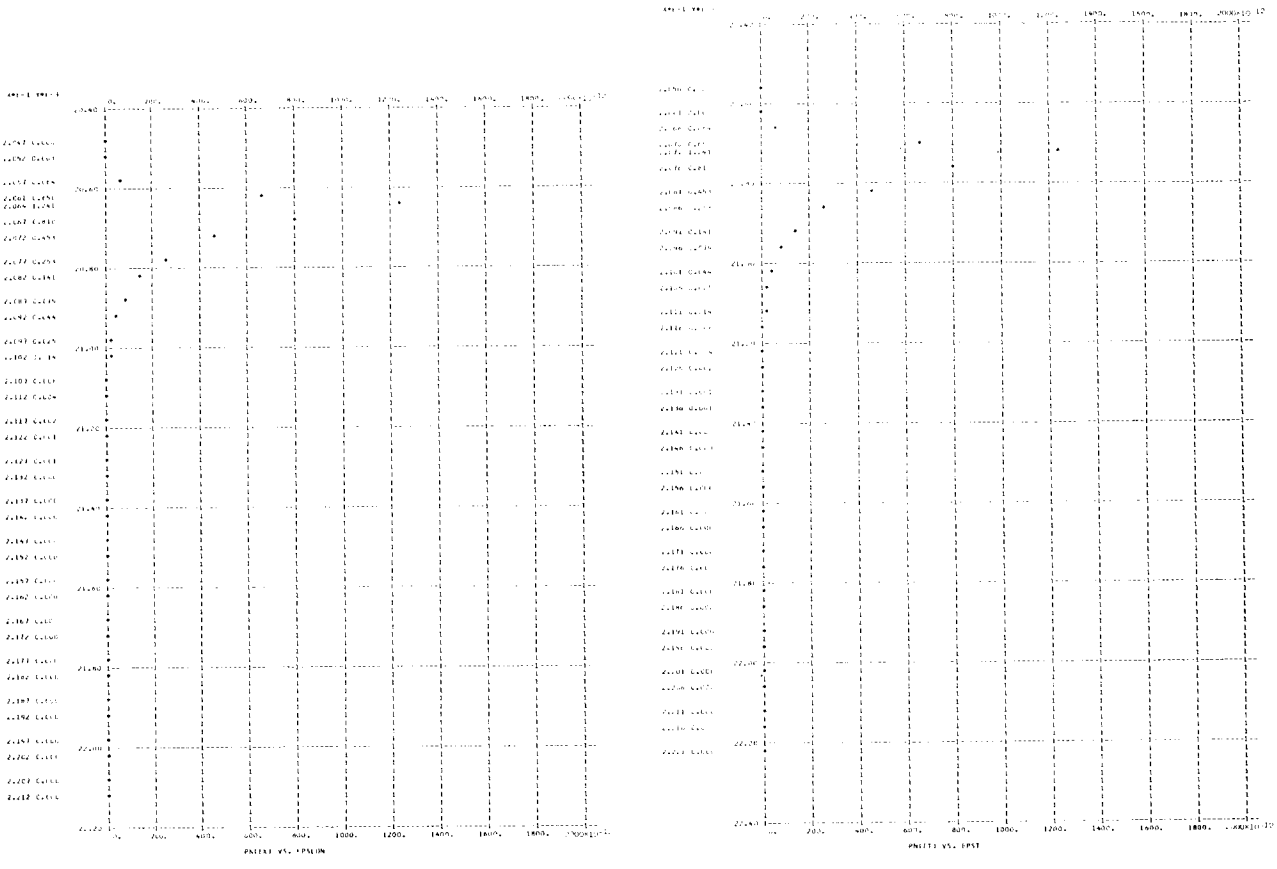
J(ET)/DELET VS. EPST

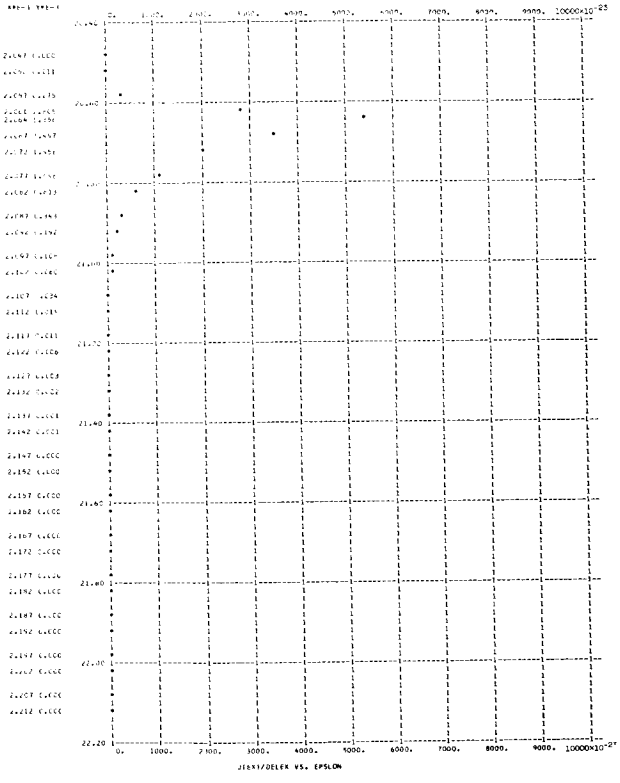


T = 1.00000000E 03 E = 0.10000002E 07 PHI = 6.00 AMU = 15.00 EVMAX = 20.6265

NEM = 0.26396224E 24 NEE = 0.14149095E-09 VXAV = 0.26982460E 09 KEXAV = 0.20698642E 02 KEXFL = 0.55850534E 10

J = 0.611607E-20 KETAV= 0.207848E 02 KETFL= 0.560830E 10 TZERO = 0.160800E 06 TD = 0.667381E 03

Figure 3. - Continued.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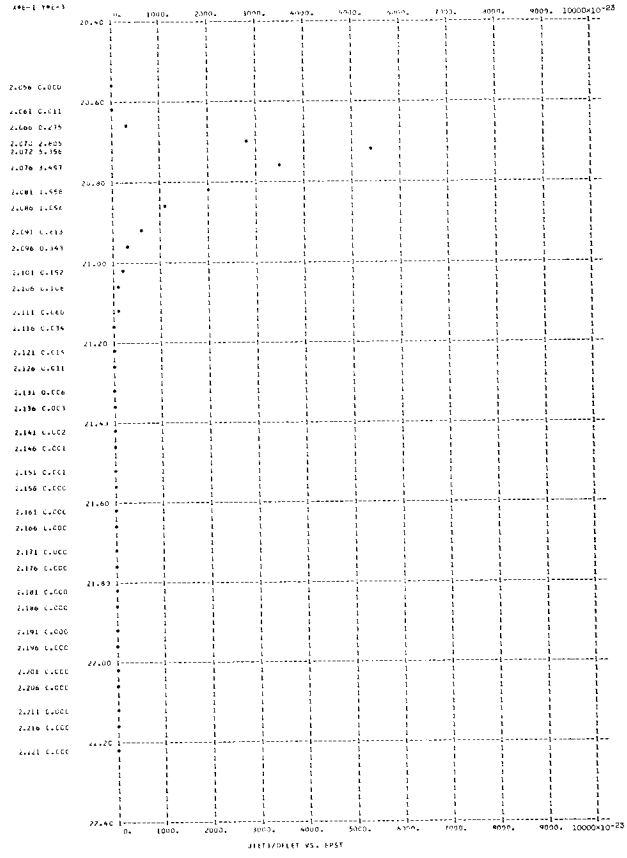
JIEXI/DELER VS. EPSLON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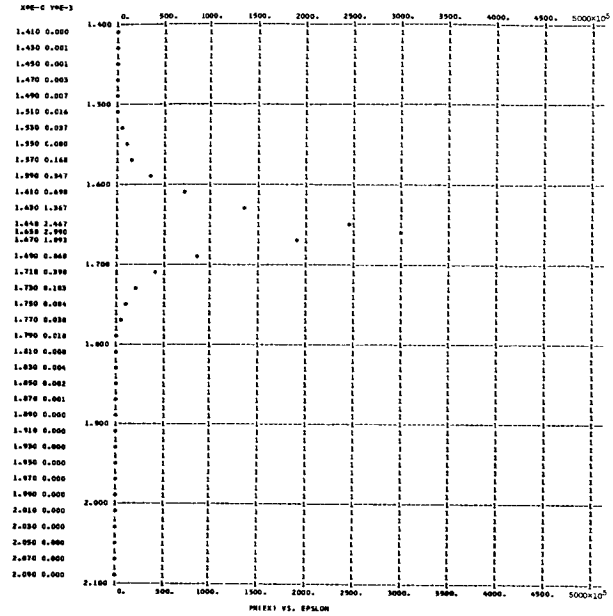
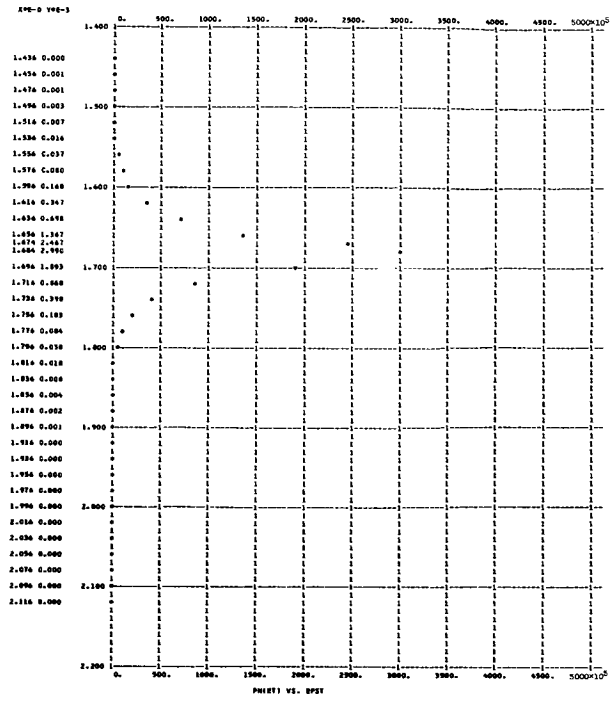
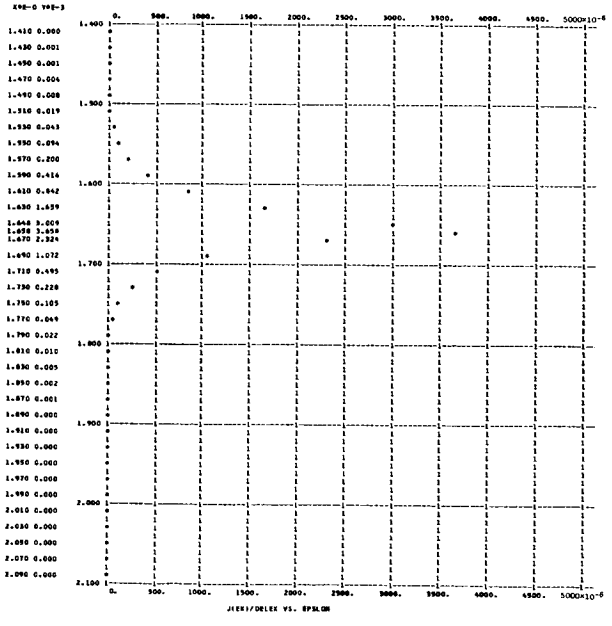
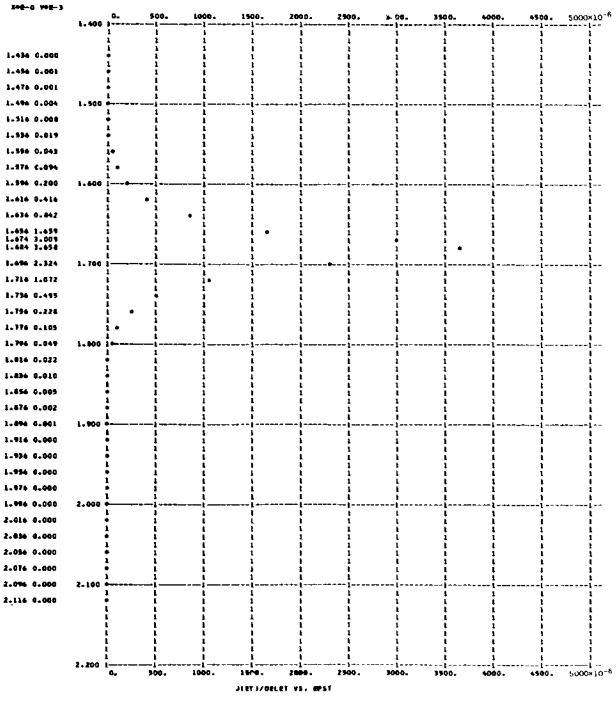
JIETI/DELET VS. EPST







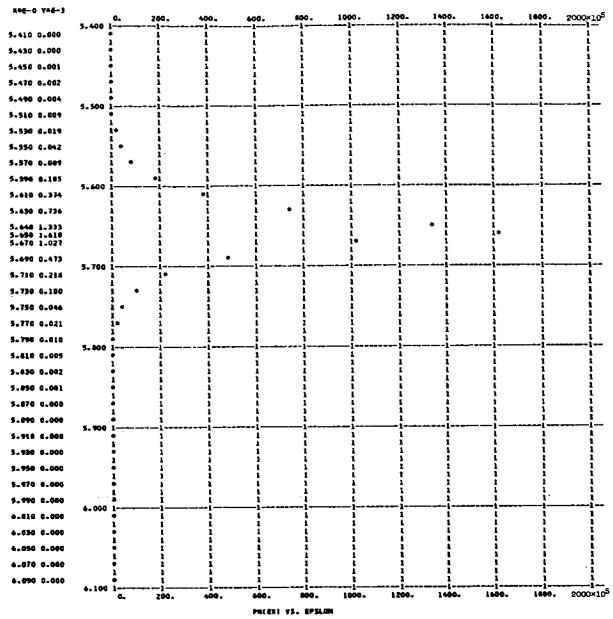


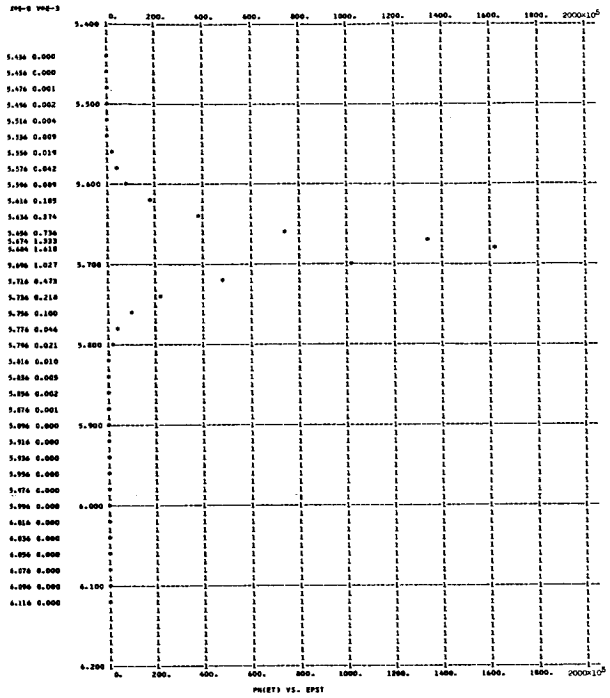
T = 0.30000000E 03 E = 0.10000002E 07 PHI = 1.00 AMU = 1.00 EVMAX = 1.6565

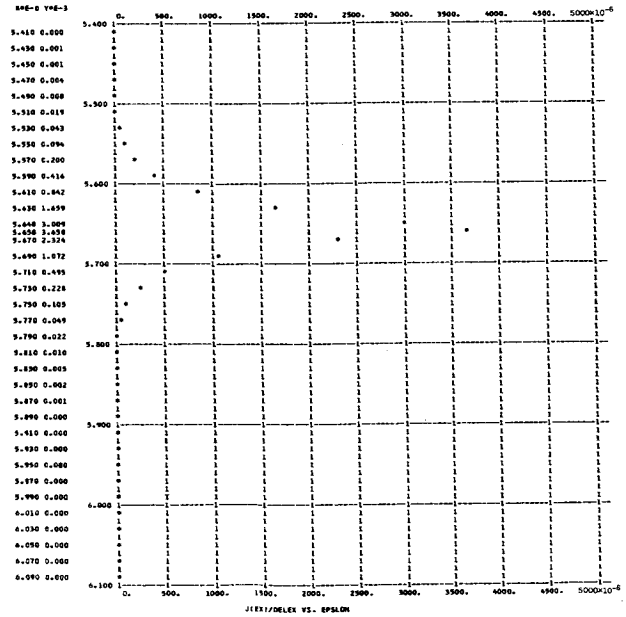
NEM = 0.45046996E 22 NEE = 0.17558460E 08 VXAV = 0.76238847E 08 KEXAV = 0.16526778E 01 KEXFL = 0.12603232E 09

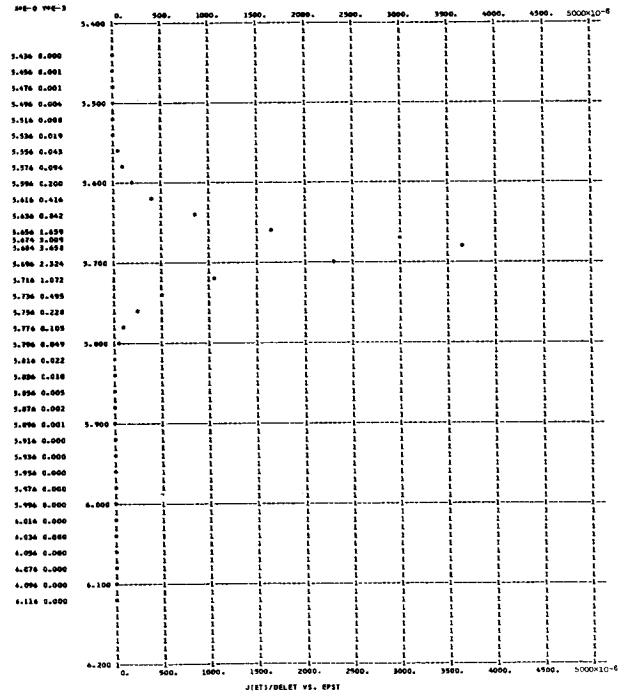
J = 0.214450E-03 KETAV= 0.167853E 01 KETFL= 0.128003E 09 TZERO = 0.129858E 05 TD = 0.201729E 03

Figure 3. - Continued.







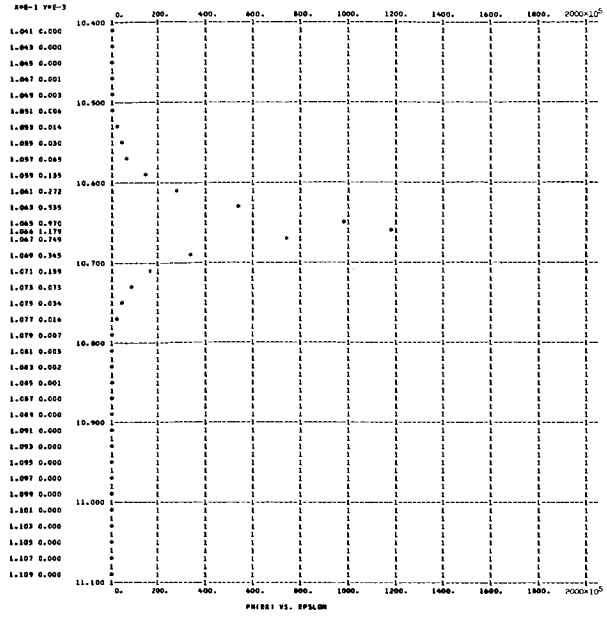


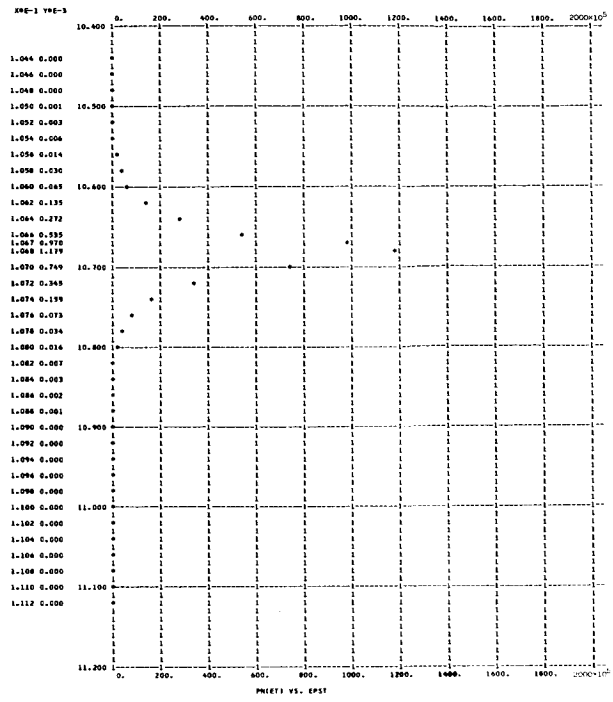
T = 0.30000000E 03 E = 0.10000002E 07 PHI = 1.00 AMU = 5.00 EVMAX = 5.6565

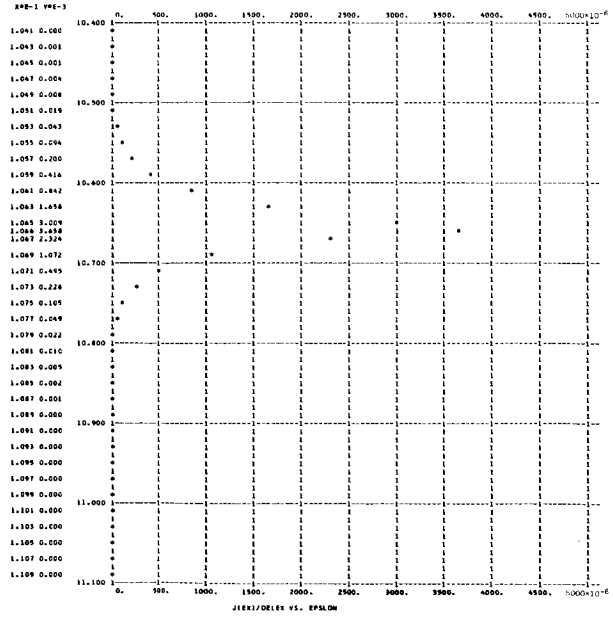
NEM = 0.50763609E 23 NEE = 0.94932231E 07 VXAV = 0.14100949E 09 KEXAV = 0.56529941E 01 KEXFL = 0.79714426E 09

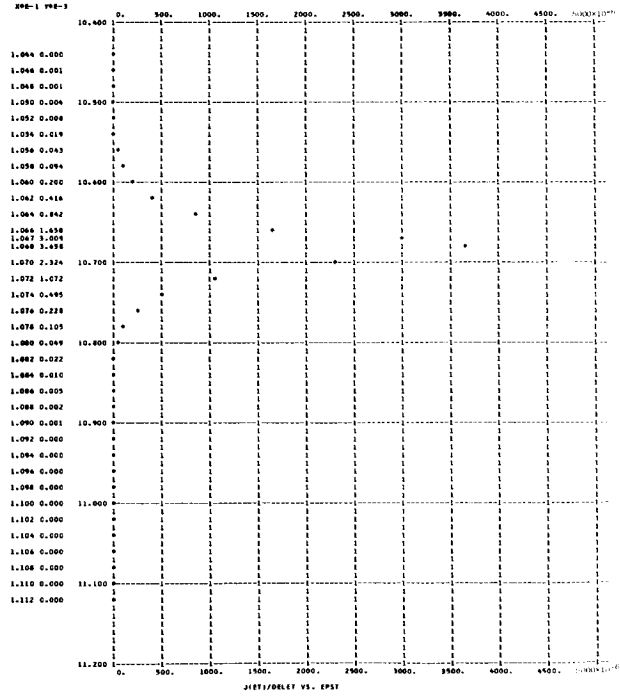
J = 0.214449E-03 KETAV= 0.567885E 01 KETFL= 0.800789E 09 TZERO = 0.439338E 05 TD = 0.200502E 03

Figure 3. - Continued.









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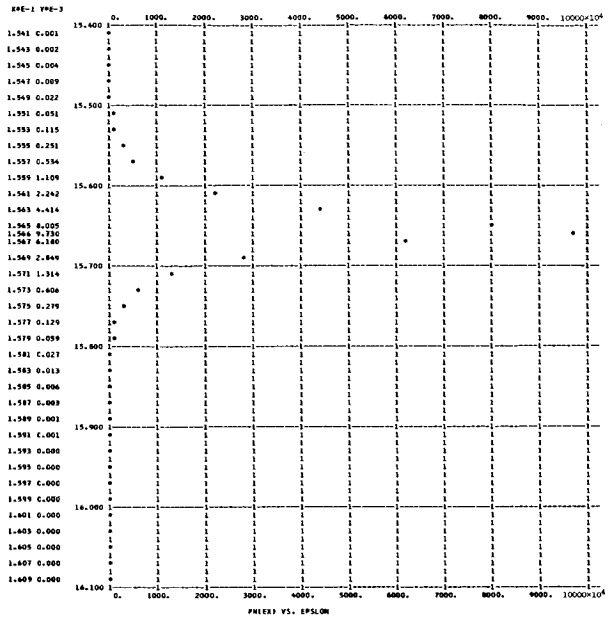
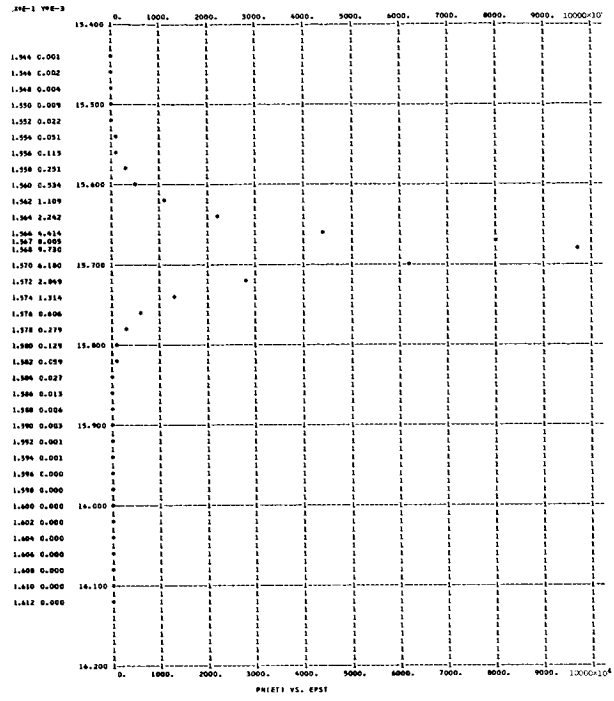
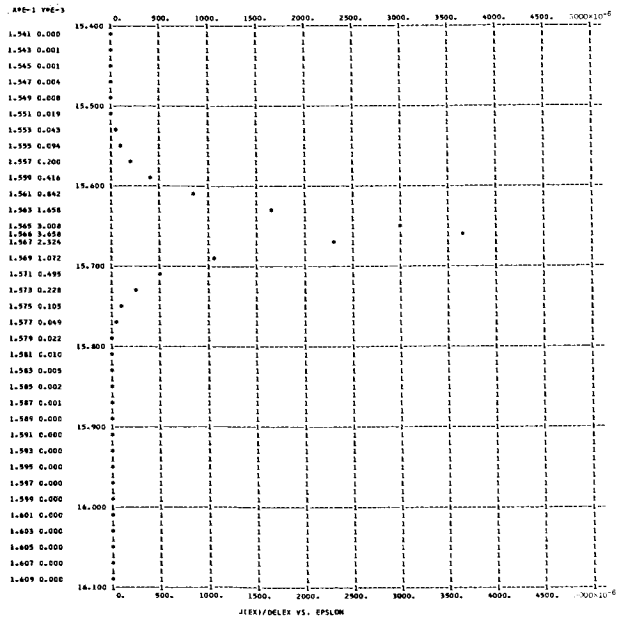
NEM = 0.14365808E 24 NEE = 0.69153114E 07 VXAV = 0.19357441E 09 KEXAV = 0.10653055E 02 KEXFL = 0.20621724E 10

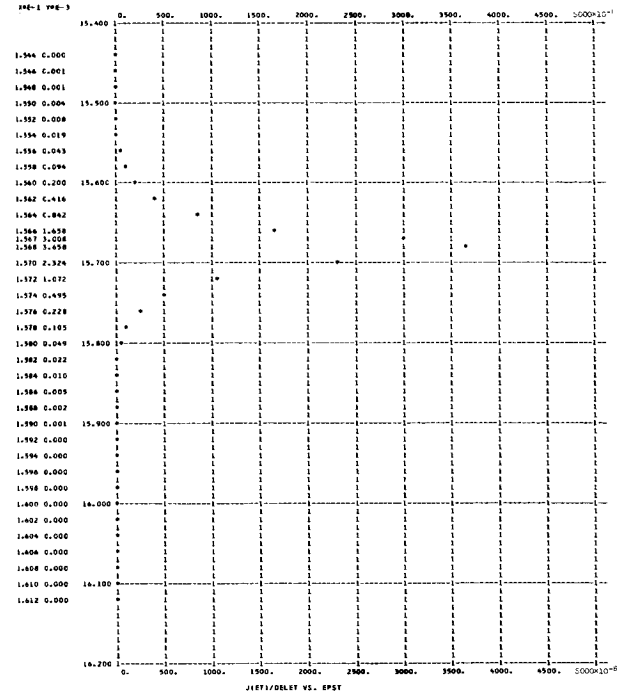
J = 0.214448E-03 KETAV= 0.106789E 02 KETFL= 0.206718E 10 TZERO = 0.826163E 05 TD = 0.200269E 03

Figure 3. - Continued







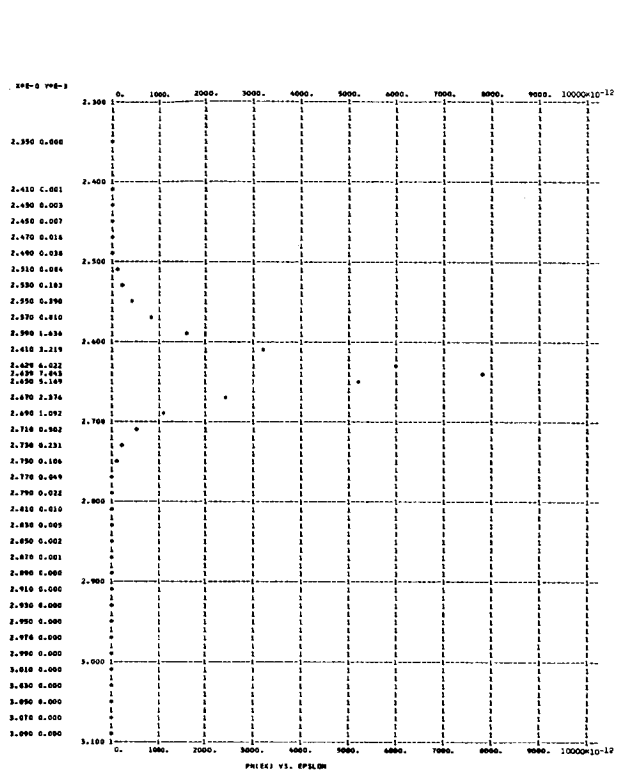


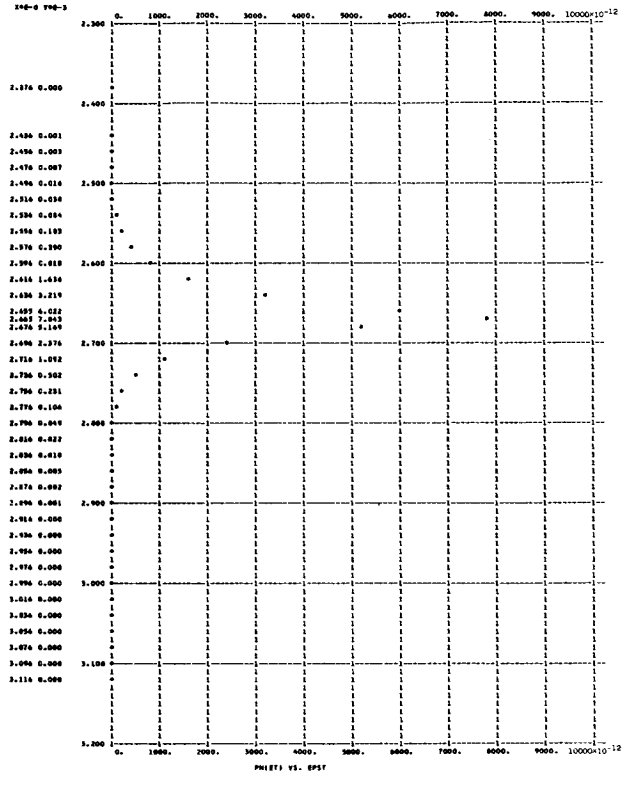
T = 0.30000000E 03 E = 0.10000002E 07 PHI = 1.00 AMU = 15.00 EVMAX = 15.6565

NEM = 0.26395249E 24 NEE = 0.57048927E 07 VXAV = 0.23464492E 09 KEXAV = 0.15653078E 02 KEXFL = 0.36729261E 10

J = 0.214448E-03 KETAV= 0.156789E 02 KETFL= 0.367899E 10 TZERO = 0.121298E 06 TD = 0.200170E 03

Figure 3. - Continued.



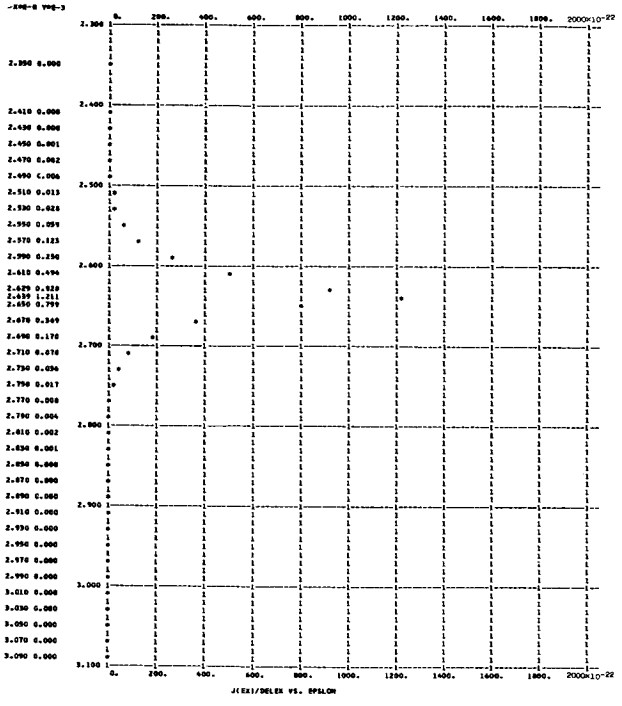


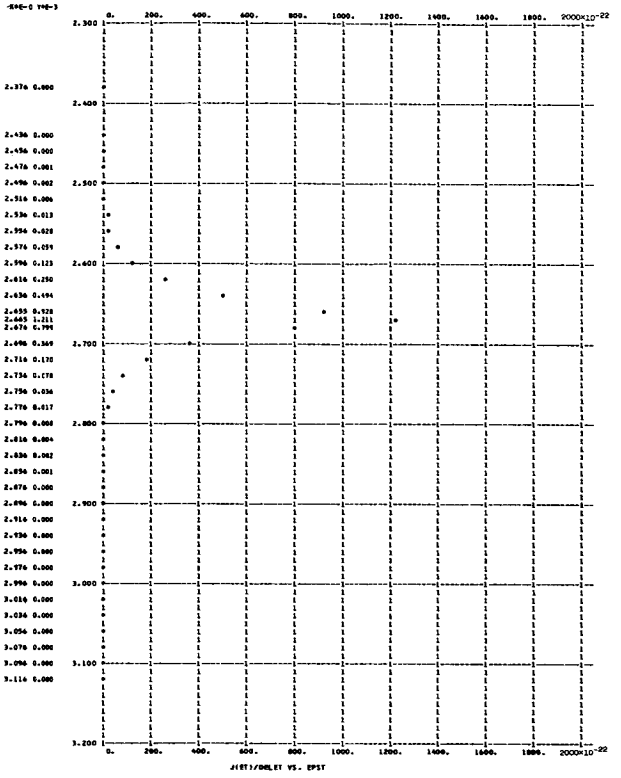
T = 0.30000000E 03 E = 0.10000002E 07 PHI = 2.00 AMU = 1.00 EVMAX = 2.6385

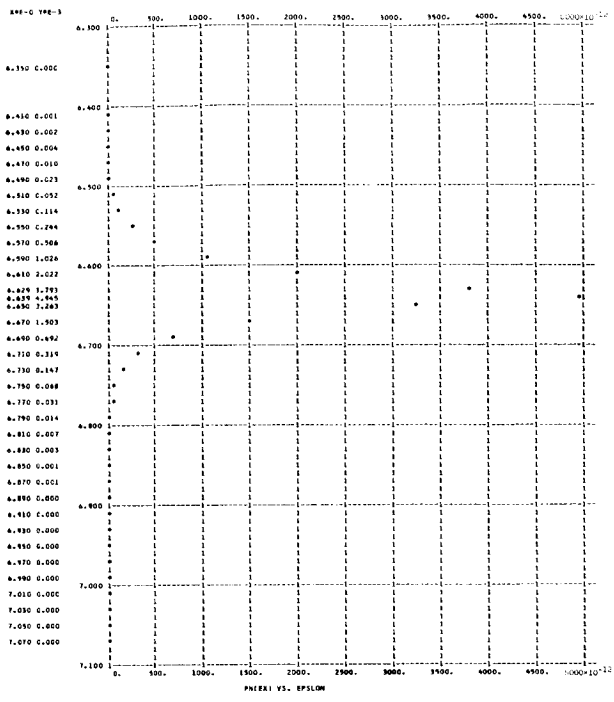
NEM = 0.45046996E 22 NEE = 0.44213697E-09 VXAV = 0.96267050E 08 KEXAV = 0.26348457E 01 KEXFL = 0.25367580E 09

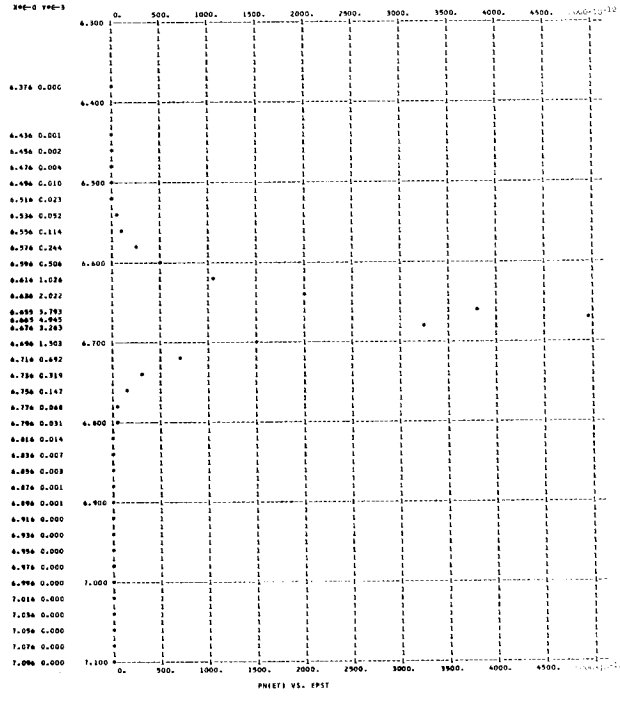
J = 0.661863E-20 KETAV= 0.266070E 01 KETFL= 0.256164E 09 TZERO = 0.205842E 05 TD = 0.201083E 03

Figure 3. - Continued.


J(EX)/DELEX VS. EPSLON
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000X10-22


J(ET)/DELET VS. EPST
0. 200. 400. 600. 800. 1000. 1200. 1400. 1600. 1800. 2000X10-22



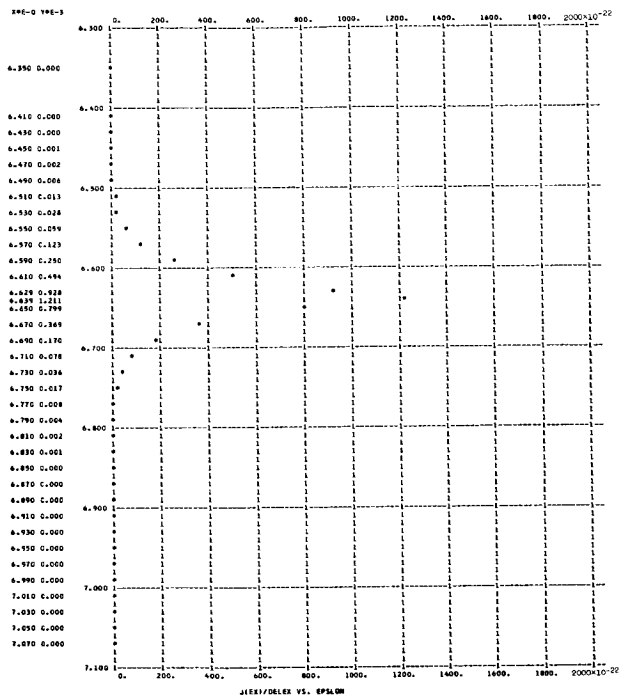


T = 0.30000000E 03 E = 0.10000002E 07 PHI = 2.00 AMU = 5.00 EVMAX = 6.6385

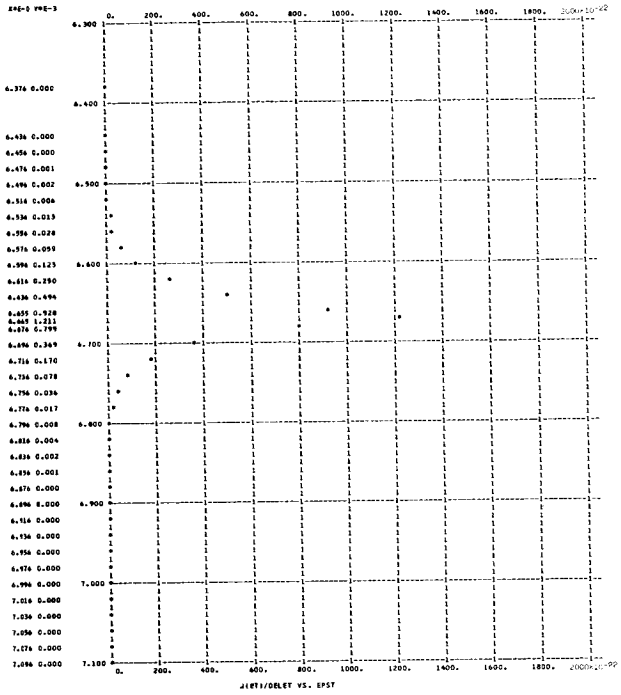
NEM = 0.50763609E 23 NEE = 0.27861460E-09 VXAV = 0.15276741E 09 KEXAV = 0.66350150E 01 KEXFL = 0.10136310E 10

J = 0.681863E-20 KETAV= 0.666087E 01 KETFL= 0.101758E 10 TZERO = 0.515311E 05 TD = 0.200426E 03

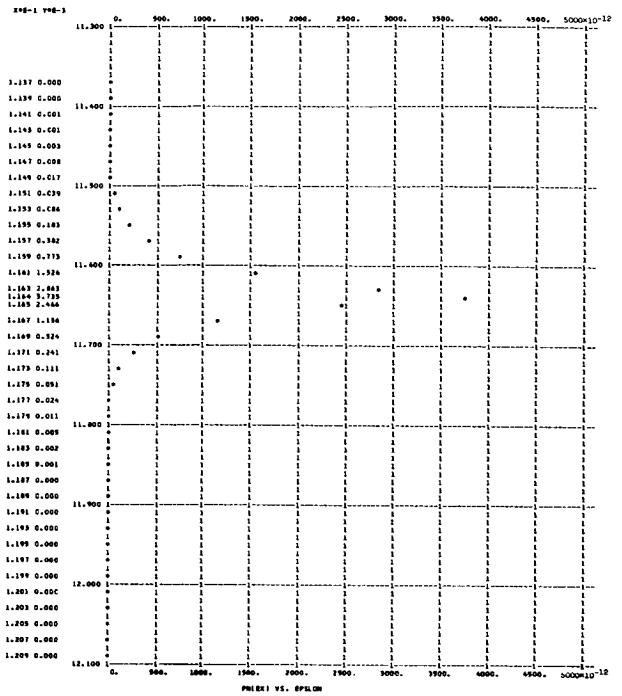
Figure 3. - Continued.

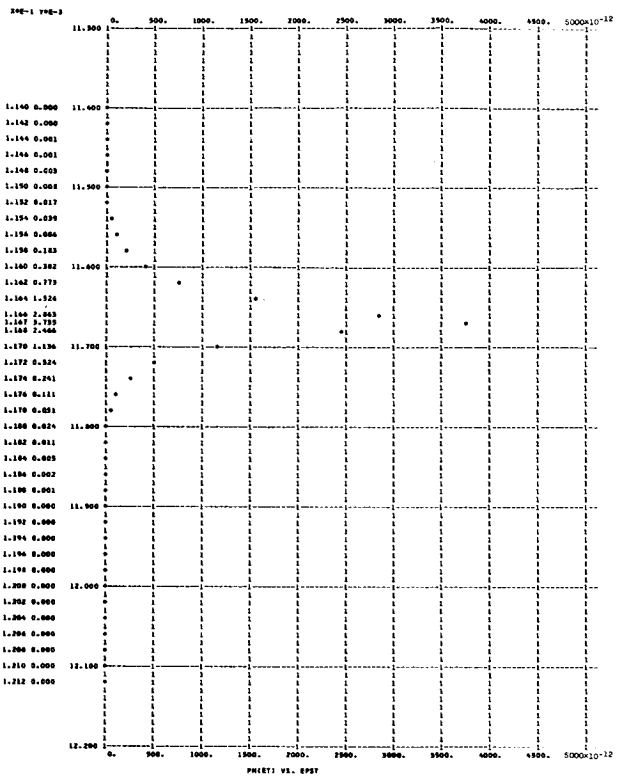


J(EX)/DELEX VS. EPSLON



J(ET)/DELET VS. EPST



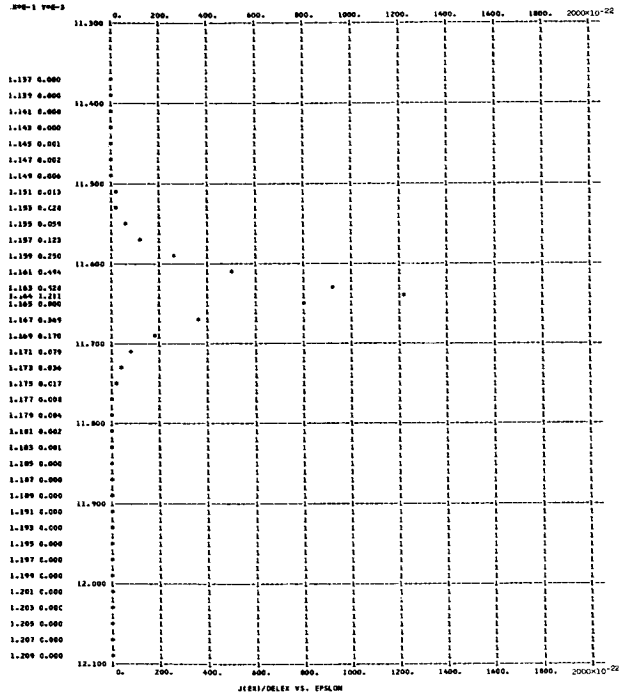


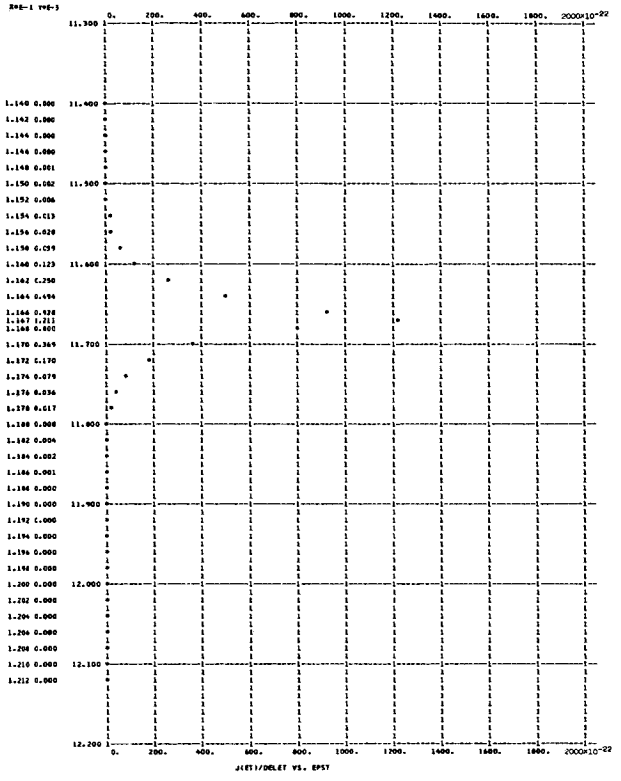
T = 0.30000000E 03 E = 0.10000002E 07 PHI = 2.00 AMU = 10.00 EVMAX = 11.6385

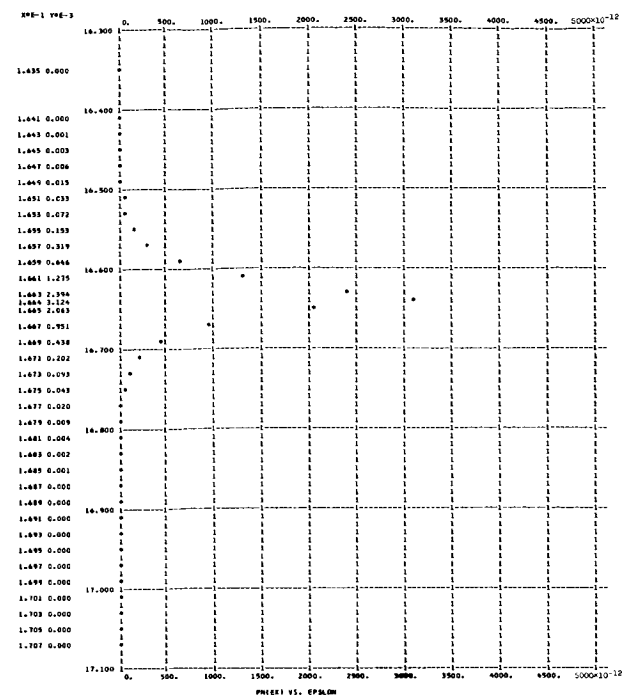
NEM = 0.14365808E 24 NEE = 0.21039920E-09 VXAV = 0.20229972E 09 KEXAV = 0.11635057E 02 KEXFL = 0.23537817E 10

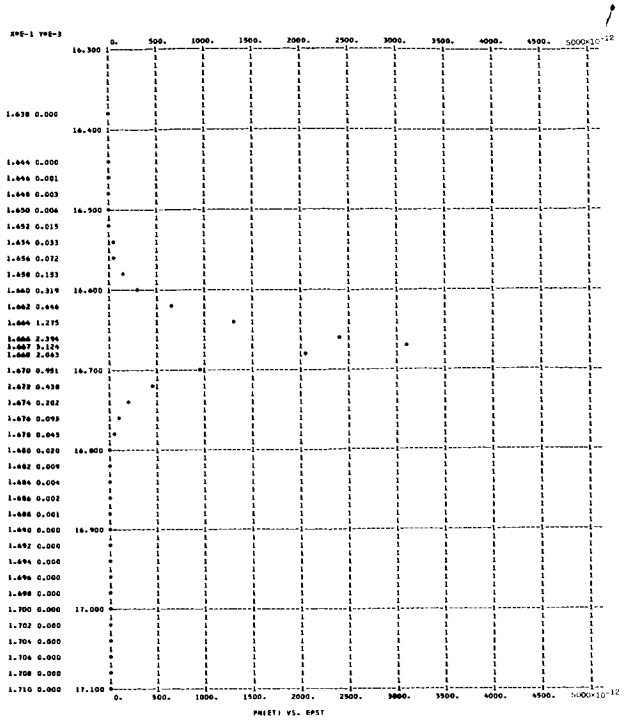
J = 0.681870E-20 KETAV= 0.116609E 02 KETFL= 0.235901E 10 TZERO = 0.902135E 05 TD = 0.200241E 03

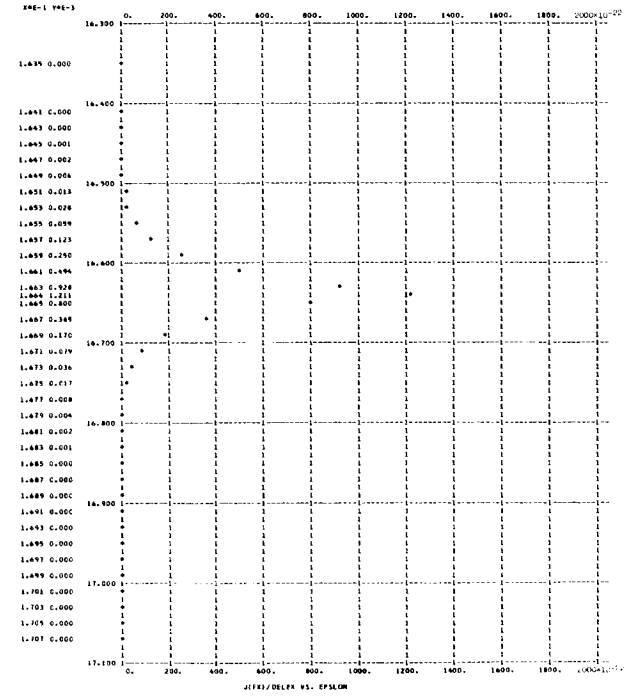
Figure 3. - Continued.

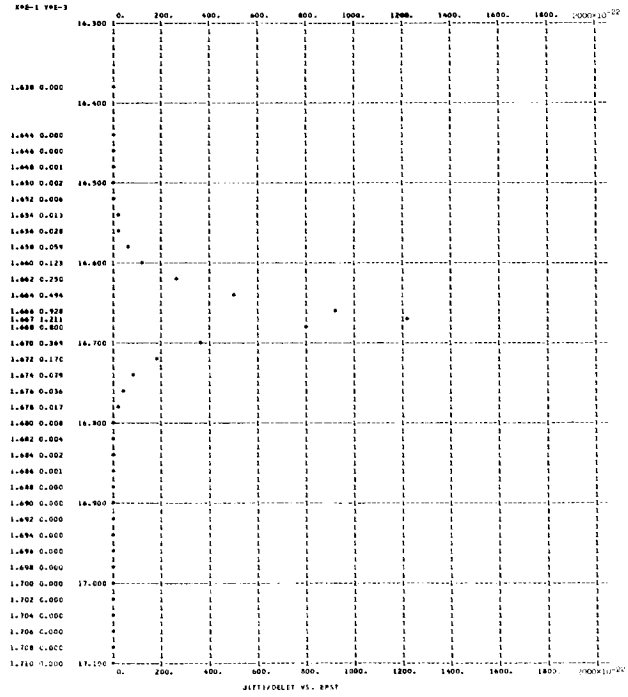

J(ER)/DELER VS. EPSLON


J(ET)/DELET VS. EPST







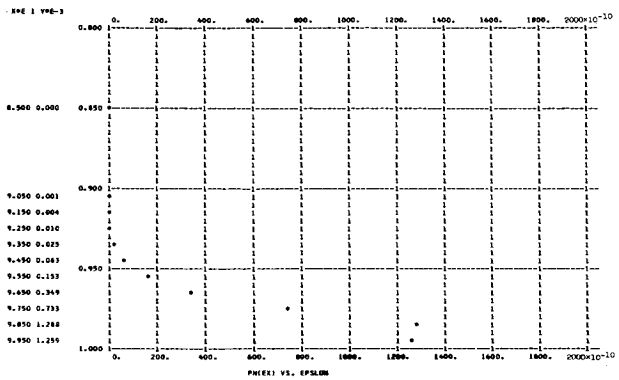


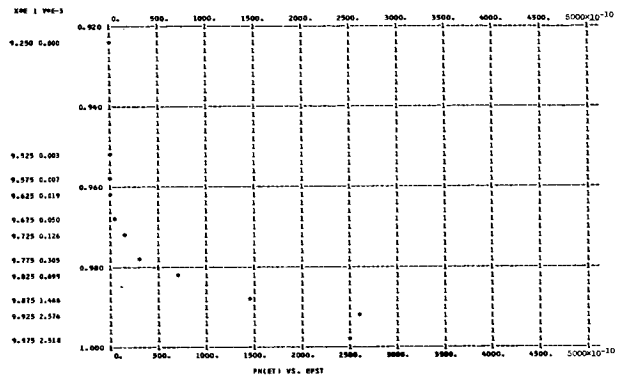
T = 0.30000000E 03 E = 0.10000002E 07 PHI = 2.00 AMU = 15.00 EVMAX = 16.6385

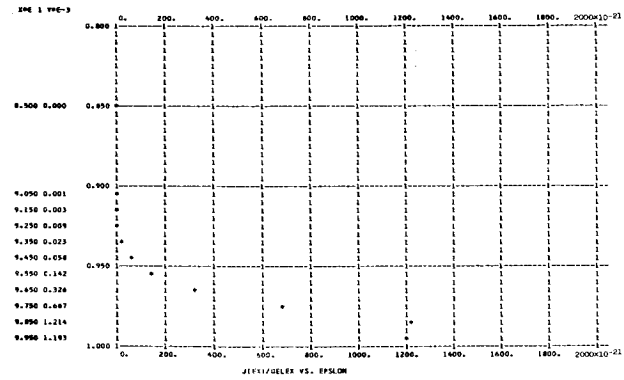
NEM = 0.26395249E 24 NEE = 0.17595743E-09 VXAV = 0.24189326E 09 KEXAV = 0.16635080E 02 KEMEL = 0.40239249E 10

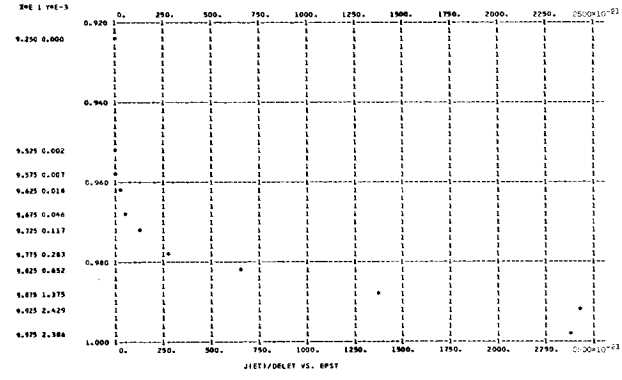
J = 0.681858E-20 KETAV= 0.166609E 02 KETFL= 0.403018E 10 TZERO = 0.128896E 06 TD = 0.200151E 03

Figure 3. - Continued.









T = 0. E = 0.10000002E 07 PHI = 1.00 AMU = 1.00 EVMAX = 1.6565

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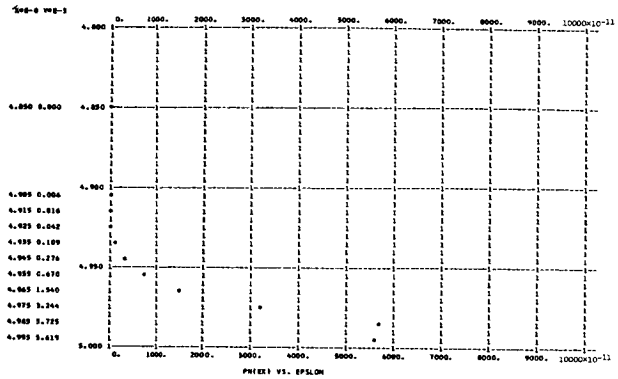
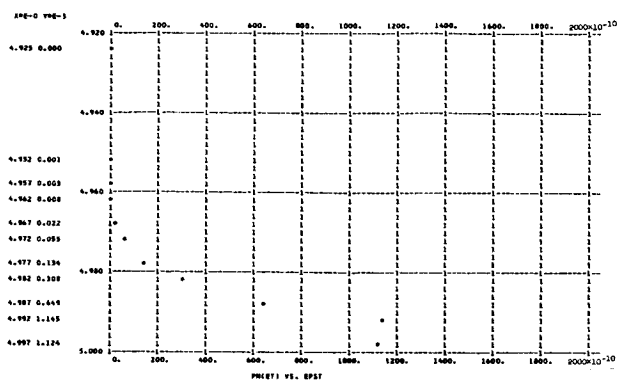
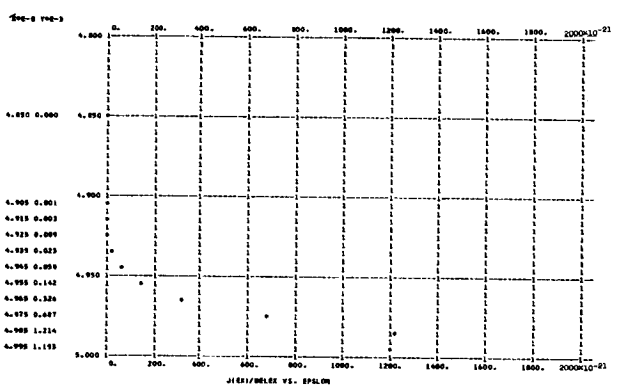
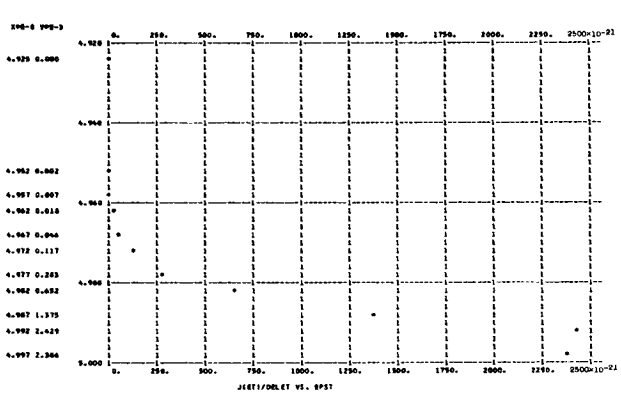
J = 0.365785E-19 KETAV= 0.991078E 00 KETFL= 0.582532E 08 TZERO = 0.766738E 04 TD = 0.693641E 02

Figure 3. - Continued.







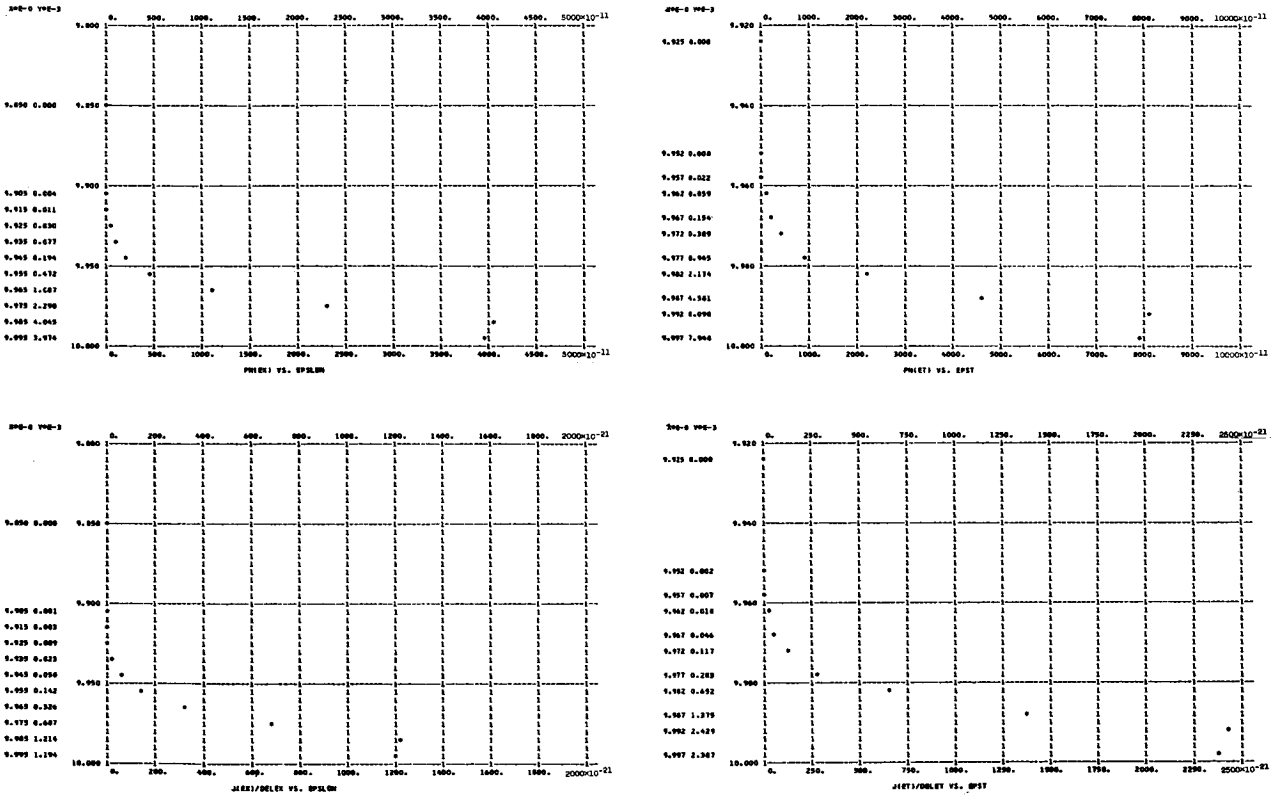


T = 0. E = 0.10000002E 07 PHI = 1.00 AMU = 5.00 EVMAX = 5.6565

NEN = 0.50762531E 23 NEE = 0.17248023E-08 VXAV = 0.13238019E 09 KEXAV = 0.49822278E 01 KEXFL = 0.65955058E 09

J = 0.365784E-19 KETAV= 0.499111E 01 KETFL= 0.660726E 09 TZERO = 0.386133E 05 TD = 0.688133E 02

Figure 3. - Continued.

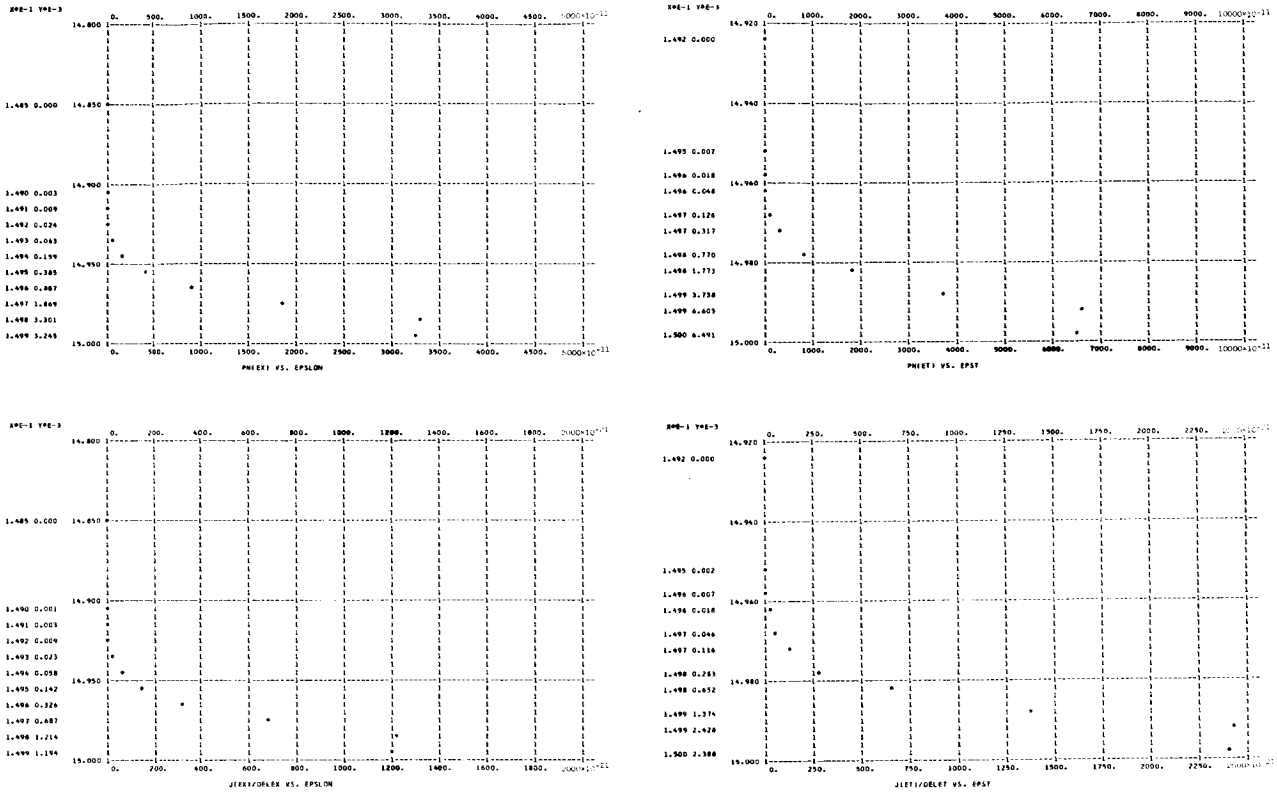


T = 0. E = 0.10000002E 07 PHI = 1.00 AMU = 10.00 EVMAX = 10.6565

NEM = 0.14365730E 24 NEE = 0.12185883E-08 VXAV = 0.18738095E 09 KEXAV = 0.99822365E 01 KEXFL = 0.18704826E 10

J = 0.365801E-19 KETAV= 0.999112E 01 KETFL= 0.187215E 10 TZERO = 0.772953E 05 TD = 0.687455E 02

Figure 3. - Continued.



T = 0. E = 0.10000002E 07 PHI = 1.00 AMU = 15.00 EVMAX = 15.6565

NEN = 0.26395185E 24 NEE = 0.99456927E-09 VXAV = 0.22956195E 09 KEXAV = 0.14982237E 02 KEXFL = 0.34393529E 10

J = 0.365761E-19 KETAV= 0.149911E 02 KETFL= 0.344139E 10 TZERO = 0.115977E 06 TD = 0.687308E 02

Figure 3. - Concluded.

"The aeronautical and space activities of the United States shall be conducted so as to contribute . . . to the expansion of human knowledge of phenomena in the atmosphere and space. The Administration shall provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof."

—NATIONAL AERONAUTICS AND SPACE ACT OF 1958

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